



Federal Air Surgeon's Medical Bulletin





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Aviation Safety Through Aerospace Medicine
For FAA Aviation Medical Examiners, Office of Aerospace Medicine Personnel,
Flight Standards Inspectors, and Other Aviation Professionals.

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
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Health and Human Services as Federal safeguards to "protect the security and confidentiality of individually identifiable health information." 

QUICK FIX

By **Richard F. Jones, MD**

PROBLEM

These days airmen seem to be ramp-checked more frequently than in the past. Sometimes the inspector chooses to validate the airman's medical certificate as part of this process. Occasionally, no medical examination is found in the Aerospace Medical Certification Division (AMCD) database corresponding to the date of the medical certificate. Further checking by the airman most often reveals the aviation medical examiner (AME) performing the examination has failed to submit the examination to the AMCD, so the loop was not closed on the examination process.

RESULT

The pilot could be kept from flying until the inspector verifies with the AME that an examination was done. See related article, "You Thought You Had a Current Medical" [page 5] for other consequences of delayed transmission of medical examination and how airmen become aware of these delays. However it comes to light, the pilot is usually justifiably angry with his or her aviation medical examiner and often calls the regional flight surgeon (RFS) to complain. The timeliness of

the AME's examination submissions naturally comes under scrutiny and, if judged to be deficient, could undermine trust in the AME.

SOLUTION

All FAA medical examination results must be submitted to the AMCD "in a timely manner" in accordance with the *Guide For Aviation Medical Examiners* (page 9). Timely submission means as soon as possible after the examination is completed but no later than 14 calendar days after the date of the examination. Airmen who have delayed seeking certificates until near or past the expiration of the previous certificate should be advised not to fly until a date the AME reasonably expects to have submitted the results to the AMCD. The AME should then prioritize transmission. Be advised the AMCD is now sending error letters to the AME and RFS whenever an examination over 30 days old is received. The Aerospace Medical Education Division is also providing examination transmission delay statistics for each AME to the RFSs on a regular basis. Transmission delays will be a significant factor in decisions on AME redesignation each year.

Dr. Jones manages the Civil Aerospace Medical Institute's Aerospace Medical Education Division.

Another Challenge in Adjusting to Changing Times

For the Summer 1999 issue of the *Bulletin*, I wrote a column titled "Dealing With Change." In that column, I pointed out that dealing with technical and organizational change presents one of the greatest challenges managers and employees face during their working lives. The thrust of the article was to emphasize the need for flexibility in accepting fresh ideas and using new technology.

While my thoughts were focused principally on aviation medical examiner acceptance of electronic transmission of medical certification data, I referenced the impact that personnel

The Federal Air Surgeon's Column



By Jon L. Jordan, MD, JD

Federal Air Surgeon's Medical Bulletin

Secretary of Transportation

Norman Y. Mineta

FAA Administrator

Marion C. Blakey

Federal Air Surgeon

Jon L. Jordan, MD, JD

Editor

Michael E. Wayda

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Authors may submit articles and photos for publication in the Bulletin directly to:

Editor, FASMB

FAA Civil Aerospace Medical Institute

AAM-400

P.O. Box 25082

Oklahoma City, OK 73125

e-mail: Mike.Wayda@faa.gov

changes have on an organization's vitality and culture. At that time, Dr. **William Hark**, my long-time deputy, had retired from the agency, and I was lamenting the negative impact his departure would have on the Office of Aerospace Medicine and on me, personally. Unfortunately, another key staff member has now

retired, and we have another significant void to fill.

On March 3 of this year, Dr. **Barton Pakull**, FAA's Chief Psychiatrist, retired after over 39 years of Federal service. Bart joined the FAA's medical staff in 1970, fresh out of the Peace Corps and following a stint in the US Army as a Green Beret psychiatrist. Bart brought not only an unusual background and variety of experiences to the FAA but also an approach to psychiatric investigation and diagnosis that served aviation safety quite well – he didn't believe everything (sometimes nothing) others might be inclined to tell him.

Bart is known best for the role he played on behalf of the FAA in the establishment and development of the Airline Pilots Association's Human Intervention Motivation Study (HIMS). As I indicated in my column in the Fall 2002 issue of the *Bulletin*, the program for identification, rehabilitation, and return to duty of alcoholic airmen that was established under HIMS has proved to be highly successful. Over the years since its initiation in the mid-'70s, thousands of alcoholic and alcohol-abusing airmen have been identified, rehabilitated, and safely returned to aviation duties [see Dr. Borrillo's article on page 8 of this issue].

It's difficult to think of any other single medical certification initiative we have taken that has had a more

positive impact on aviation safety. Bart formulated FAA's criteria for certifying alcoholic airmen and, since inception of the initiative, he personally reviewed virtually all of the cases, assuring clear introspect, consistency, and objectivity in the decision-making process.

While known best for his involvement in the certification of rehabilitated alcoholic airmen and his efforts to educate others on how to diagnose, treat, and monitor alcoholics, Bart's value to the Office of Aerospace Medicine and to me, personally, went far beyond that one element of our certification program. As I have already mentioned, Bart's approach to assessing psychiatric cases generally is the trait that set



Dr. Pakull at a 1990 CAMI conference on alcohol abuse in airline pilots.

him apart from many other medical practitioners, including psychiatrists. With rare exceptions, Bart was able to sort out truth from untruth and correctly identify those airmen who should or should not be certified. Given the importance of an airman's good mental health to aviation safety, Bart performed a public service of significant magnitude.

Like Bill Hark, Bart's retirement leaves a major void in the structure of the Office of Aerospace Medicine. When it's all said and done, however, I'm sure we will survive and who knows, may even flourish.

For all of us who have depended on Bart's expertise, though, his retirement presents another challenge in adjusting to the changing times.

—JLJ



Certification Issues and Answers

By Warren S. Silberman, DO, MPH

1 A 42 y/o 1st-class pilot has been coming to you for his biannual flight exams. He is due his annual electrocardiogram. Your nurse performs it, and it demonstrates a new complete right bundle branch block. Last year, his heart was considered normal. Since this is a flight exam, what should you do? (correct answers and references to the *1999 Guide for Aviation Medical Examiners* are on next page.)

2 In the past several days, I have been reviewing medical case files of exams where the AME issued the medical certificate. In several instances, I came across another electrocardiogram problem that could have been easily solved. First, I should not have to remind you, but please look at the ECG before you transmit it into AMCD. What should it indicate if you saw “q” waves in limb leads 3 and AVF? Or, perhaps sometimes there is a small “r” and deep “s” wave. To me, this suggests an old inferior wall myocardial infarction! You should immediately attempt to find a previous ECG. If none is available, you should repeat the ECG with the airman holding his/her breath in inspiration and then in expiration. It turns out that leads 3 and AVF can be affected by respiration and *mimic* an old inferior wall myocardial infarction, depending on the respiratory cycle that the graph is performed in. Just by performing this quick maneuver, you can avoid much hassle for your airman (Henry Marriott’s *Practical Electrocardiography*).

3 “Crash” Craddock, an agricultural spray pilot, was repairing his airplane up on an elevated platform. While

Dr. Silberman manages the Civil Aerospace Medical Institute’s Aerospace Medical Certification Division.

We are going to continue our case presentation theme. As always, look for the medical certification teaching point. References to the *1999 Guide for Aviation Medical Examiners* and other sources are provided. Please note: *Only the Federal Air Surgeon, the Manager, Aerospace Medical Certification Division, or Regional Flight Surgeons can authorize a waiver (Authorization for Special Issuance).*

attempting to remove the propeller, he fell backwards, striking his occiput on the cement hangar floor. Luckily, his partner, Buck Rogers, was there to come to his aid. Buck informed the emergency room physician on duty that Crash was unconscious for approximately 1 minute. When he awoke, he was oriented but had forgotten what he was doing just prior to the event. There were no post-event seizures. A CT scan of the brain demonstrated a nondisplaced frontal skull fracture and a small subdural hematoma. He had an uneventful recovery. Crash informed his AME several months later of the incident and provided her with the hospital records and a status report from the neurosurgeon that cared for him. The status report indicated that *Mr. Craddock is good to go!* The AME issued Crash a medical certificate good for full 2nd-class privileges. What do you think of this decision?

4 Sadie Simington is a 30-y/o accountant who has a burning desire to learn how to fly. There is one issue: She suffers from recurrent muscle contracture headaches. These headaches start in her upper cervical area and radiate into her occiput. They are associated with photophobia and nausea. She takes the medications UltracetTM (tramadol hydrochloride and acetaminophen) and AdvilTM (naproxen sodium) for the headaches, with much success. She has been averaging two headaches per week, requiring a total of about 8 Ultracets. She relays this to her AME, who informs her that these are “tension headaches,” and the medications are “safe.” She can have her medical certificate, so she can solo. Is there anything wrong with this picture?

5 Those who are appreciative of our fine associates in the pharmaceutical industry can only marvel over their television ads that recommend some

new treatment for the condition of bipolar disorder. Well, prospective aviator Billy Ray Smith goes to his local AME and relates the story of an episode of mania he had back in 1997 and then another one in 2000. He has been doing fine since then on his medication LithobidTM (slow-release lithium carbonate). He has a nice family and is an assistant to the local gastroenterologist. The AME tells Billy that he is under great control and issues a 1st-class medical certificate. Was this an appropriate decision?

6 A pilot with a recent diagnosis of hyperthyroidism goes in for her 3rd-class medical certificate. Her diagnosis was made when she developed an episode of supraventricular tachycardia, necessitating an emergency room visit. She is presently taking propranolol hydrochloride 40 mg. t.i.d. and PTU (propylthiouracil). The PTU was started while she was awaiting treatment of I131. Her thyroid function studies are not yet euthyroid. Her AME, a pilot herself, feels the applicant is stable and issues the medical certificate. Would you let your daughter, an aspiring aviator, fly with this pilot?

7 An airman goes to his AME for a 1st-class examination. The AME reads over the nurse’s testing results and notes that the BP was 180/100. What should the AME do now?

8 An aviator with elevated LDL cholesterol and a positive family history of cardiac disease tries a low-fat diet but fails to lower his LDL on subsequent tests. His treating physician places him on LipitorTM (atorvastatin calcium). The airman had no side effects or any abnormal liver function. He goes to his AME for a 2nd-class medical certificate. What should the AME do?

Continued on page 4...

Issues & Answers from page 3

Fred Munster is a 45 y/o pilot who goes to his AME for a 2nd-class medical certificate. He takes a status report from his treating neurologist indicating mild Parkinson's disease. Fred has minimal rigidity, normal gait, and ambulation

with slight intension tremor. He was placed on Mirapex™ (pramipexole dihydrochloride). The AME performs an examination and finds the Parkinsonism is under great control, and he issues Mr. Munster an unlimited 2nd-class medical certificate. What do you think about this one?

Answers to Certification Questions

1 If you know that this is a new finding, you should defer the exam. The airman needs to obtain a cardiovascular evaluation and a maximal Bruce stress Test. It has been shown that one can distinguish ischemic changes in the face of a RBBB; however, if this cannot be done, it is best to have the airman undergo a nuclear stress test. If the airman can manage to obtain this testing before the 14-day requirement to transmit the exam into the Aerospace Medical Certification Division (AMCD) and the workup fails to reveal ischemia or evidence of prior infarction, then you have my permission to issue the medical certificate. (*AME Guide*, page 101).

2 (There is no correct "answer" to this comment.)

3 Well, the AME was wrong to do this. The *AME Guide* (p. 63) tells the AME to defer such cases to AMCD. This was a case of a mild cerebral concussion, which under normal circumstances would allow the airman to return to flying duties when released by the treating physician. In this case, though, the airman suffered a small subdural hematoma—and because of the increased incidence of seizures, it will result in a two-year disqualification!

4 Ultracet™, which contains the medication tramadol is absolutely unacceptable. It is a centrally acting opioid analgesic. Not only is the medication unacceptable but the condition, as it presently exists in Sadie, is also unacceptable (*AME Guide*, pages 22 and 63).

5 No, it was not! Bipolar disorder is one of the specifically

disqualifying illnesses. This means that the AME should deny or defer such cases to AMCD. Recall, this illness is recurrent. In addition, the use of the medication lithium carbonate is unacceptable for certification by an aviation medical examiner. There have been a handful of airmen qualified by the FAA to pilot an aircraft with this condition, but normally, with a history of a hypomania event some years earlier. Some of these airmen are taking lithium. All of these cases are routinely referred to the Office of Aerospace Medicine's chief psychiatrist in Washington, D.C. (*AME Guide*, pages 3 and 70).

6 I hope not! The *AME Guide* (page 73) says the AME should defer this condition. Our guideline is that you should not issue a medical certificate until the airman is stable and euthyroid. This would occur after the ablation treatment and (to be extra safe), after a period of observation for the hypothyroid state that normally follows.

7 He should take a history. If there is no history of hypertension, the AME should repeat the BP in a standing position. If it remains above FAA standards, he should obtain blood pressures in the mornings and afternoons for at least three days. These can be done by your office help, a work-site nurse, an EMT, or paramedic at the local fire station, etc. If the average of these blood pressures is 155/95 or less, you may issue the medical certificate. I am not questioning your intelligence by presenting this scenario, but I cannot tell you how often this occurs in our review of such cases: The AME defers the certification to us without first exploring possible alternatives (*AME Guide*, pages 95-7).

1 Airman Sky King is 71 y/o and in his AME's office for a 3rd-class flight exam. He reports a history of an episode 6 months earlier of a loss of vision in the right eye, along with hemiparesis of the right side of his body. The whole episode lasted 24 hours. His workup was positive for a left cerebral infarction. His signs and symptoms had completely resolved by the time of his current FAA exam, so the AME issues an unrestricted medical certificate. Was this an appropriate decision?

8 What we would like for the AME to do is to type a note in Block 60 that the airman is on atorvastatin for treatment of hypercholesterolemia, and there are no side effects. We approve all lipid-lowering medications—with the exception of Zetia™ (ezetimibe)—as it is a new cholesterol-lowering drug that has a different mechanism of action. Zetia™ was approved by the FDA in October 2002, but we will not consider its acceptance until October 2003.

9 Parkinson's disease requires deferral. The status of the disease would not prevent medical certification, but the medication pramipexole is unacceptable. This medication was demonstrated to result in patients falling asleep—suddenly and without warning. This unfortunate side effect has resulted in motor vehicle accidents. Would you feel comfortable flying with an airman who might doze off at any moment? (*AME Guide*, page 65; *Physician's Desk Reference*.)

10 Cerebral infarction is grounds for deferral—regardless of the resolution interval. The FAA normally requires a 2-year period of observation after a TIA or cerebral infarction. At the time of presentation for medical certification, we require a cardiovascular evaluation. This should include a consultation, lipid panel, fasting blood sugar, maximal Bruce stress test, 2 D echocardiogram, brain scan, and a 24-hour Holter monitor study (*AME Guide*, page 63). →

You Thought You Had a Current Medical?

FAA Safety Program Manager Poses Some Challenging Questions

By Robert Martens

AS A SAFETY PROGRAM MANAGER in a Flight Standards District Office (FSDO), I meet with the aviation public at least twice every week. And while I only reach a small segment of the aviators within our district, several years ago an inordinate number of program attendees asked why they were no longer receiving their monthly Aviation Safety Program Seminar announcement through the mail.

Since only the holders of a current medical receive the announcement, which is mailed from Oklahoma City, my first question was whether they had a current medical.

When they responded “yes,” I knew we had a problem.

After checking their records on the FAA database, it was plain to see that their most recent medical information had not reached Oklahoma City, and all of these individuals had been to the same aviation medical examiner (AME)! The short version of this story is that this medical examiner “resigned” as an AME, but where did it leave the folks who went to him for FAA examinations? Were they legal or not?

In the early 1990s, similar questions from pilots in southern Connecticut revealed that an FAA-designated aviation medical examiner was performing medical examinations and not passing along the files to Oklahoma City. The most ironic incident that I uncovered was the AME who asked me about the status of HIS examination, only to find that his examiner had not forwarded the file. Subsequent follow-up on other pilots revealed the files were still “sitting” in the medical examiner’s office, while the unsuspecting pilots were flying with no record of their examination on file with FAA. The doctor was removed as an examiner, but countless pilots were left in limbo as to the status of their medical certification.

Why is this a problem, you might ask? Well, the answer is very simple. Should these unfortunate individuals have been involved in a fatal aircraft accident and have the only valid copy of their medical on their person, it may or may not be discovered by the accident investigators. And, if it weren’t, the investigation would likely conclude that the individual was flying with an outdated medical certificate. Could this affect the insurance or liability claims? I think so!

If these incidents happened back in the 1990’s, why am I bringing it up now—especially with the new computerized system of filing medicals?

Recently, I heard of another incident in the Washington, DC, area when a pilot was applying for a security clearance to get out of Hyde Field in Maryland (one of the three remaining restricted airports). When the FAA safety inspector pulled up his records, it showed that the pilot didn’t have a current medical. This was odd because the inspector had seen the copy of his medical when the pilot had come in to fill out the paperwork. What had happened? In this case, the AME had moved to a new office days after the flight physical was completed. In the confusion of the move, the medical information was never transmitted to FAA. Fortunately, the pilot had no plans to fly any time soon, because it took three weeks to locate the missing papers and have them forwarded to Oklahoma City. However, for several months the pilot thought he had an examination on file with the FAA. He was fortunate that nothing had happened.

How do pilots know that their FAA medical is on file? At one time, unless they happen to tune in to the fact that they have stopped receiving their FAA Safety Seminar schedule each month, they would have to ask an FAA safety inspector to check it out for them. However, airmen now are able to look it up

‘The most ironic incident that I uncovered was the AME who asked me about the status of HIS examination— only to find that his examiner had not forwarded the file.’

themselves by going to a special FAA Web site. You just fill in the required information, and the site will tell you what certificates you hold and the date of the last medical Oklahoma City has on file. Medical information is derived from the records of the FAA’s Civil Aerospace Medical Institute (CAMI). If the medical dates are incorrect, you can contact CAMI at (405) 954-4821. The Airmen Inquiry Site can be found at <<http://registry.faa.gov/amquery.asp>>.

Let’s go back to the accident scene, and the only record of the poor pilot’s medical examination has gone up in flames with the aircraft. What could the pilot have done to protect his/her family against liability claims and the possible voiding of the insurance policy? Some pilots keep copies of their logbook showing their endorsement and currency history in a file at their home in case something happens to the original. It might be a good idea to also keep copies of your most recent medical and pilot certificates with them. This way, if something happens to the originals, you will at least have a copy until you can replace them. Also, in the event the worst happens, your family might need them to prove you were current and legal.

So, you thought you had a current medical. Are you sure? If you think there is a problem, check the FAA Web site to see if the date listed is that of your most recent medical. If not, check with your AME, and find out what happened.

➔

Robert Martens is the Safety Program Manager at the Windsor Locks (Conn.) Flight Standards District Office. This article was previously published in the January/February issue of FAAviation News.

Best Practices:

Dr. James E. Crane

By Mike Wayda

He is a life-long friend to pilots; they call him by his first name. At 89, the most senior of senior aviation medical examiners, still practicing after 57 years, still working hard and enjoying it.

James E. Crane, MD, a self-described “speed addict,” has been a flight surgeon for 63 years, 57 of them as an aviation medical examiner for the FAA. His 57-year career as an aviation medical examiner is the longest of any other physician currently in the system.

Dr. Crane’s fascination with aviation medicine began during WWII and continues to this day. The Stamford, Conn., physician retired in 1945 from the US Army Air Corps as a highly decorated colonel with service in such places as Egypt, India, China, Australia, and the South Pacific.

Love of flying

Dr. Crane loves aviation and everything about it. He was attracted to flying because, as he tells it, “I was a speed addict. I had a motorcycle, which gave me all the speed I wanted on land, but I wanted more speed, and that was in the air.” He learned to fly in 1935 and has accumulated between 6 to 8,000 flight hours while in the military and in civil aircraft. Although he is no longer an active pilot because of health problems, the 89-year-old very much enjoys going

up with friends. “They just call me and say, ‘Hey Jim, let’s go flying,’ and I’m apt to take advantage of the offer.”

Intellectual curiosity

Dr. Crane’s “need for speed” is sustained over the years, leading to an association with astronauts and other pilots who fly at extremely high altitudes, then thought to be at risk for cancer and other disorders. He was awarded honorary astronauts’ wings for his work. He stays “current” with his

many pilots, while becoming their friend because, as he says, “it keeps me in close contact...staying one leg up with their experiences, problems, and concerns, not only while flying but also in their personal lives.”

His research into aviation-related disorders led to the writing and publication of four books: *The Pilot’s Brain, Mind, and Memory*; *Electricity as It Relates to Flight Operations*; *The Prime Mental State in Flight Operations*; and *The Attorney’s Guide on Memory and Alzheimer’s Disease*. He claims that, working with the Mayo Clinic, he has found a “cancer breakthrough” in the administration of gamma globulin and Vitamin B12 to both detect and treat various cancers.

The Practice of Aviation Medicine

The practice, an eight-room office whose walls of framed photos of airplanes and people resemble an aviation museum, is dedicated to aviation medicine. Dr. Crane employs three staff

assistants: an office manager (who has several framed FAA training certificates on the wall), a nurse (responsible for eye tests and audiograms, ECGs, blood work, etc.), and a secretary (reception, correspondence, and transmission of FAA exams). All three staff members are familiar with the procedure of transmitting FAA exams to the FAA’s Aerospace Medical Certification Division.

They all enjoy the relatively new electronic system of transmitting exams to Oklahoma City because, as Dr. Crane put it, the system “expedites transmission of records and corrects questionable answers before the original is sent

Key Elements in a Physical Exam

Dr. Crane says there are certain key items he looks for when giving a medical certification applicant a physical. The four most important:

1. Appearance: clothing, haircut, shave, cleanliness, polished shoes, and neatness
2. Answers to questions: eye-to-eye contact when talking; honesty
3. Tremors, nervousness
4. History of arrests, alcohol and drug abuse

to Oklahoma.” The only drawback is that they had to purchase computer equipment and learn how to operate the new software program. But that all worked out well and the office staff is satisfied with their increased efficiency and accuracy (of 693 exams completed last year, 12 errors were made).

Continued on page 9...

Pigmentary Dispersion Disorder and Pigmentary Glaucoma

By Matt Dumstorf, MD

Successful Treatment and Close Follow-up by an Ophthalmologist Both Go a Long Way Toward Keeping Aviators With Pigmentary Dispersion Disorder or Pigmentary Glaucoma Medically Fit to Fly

Pigmentary dispersion disorder most often affects young, white, male adults. As many as 25 to 50% of these patients will go on to develop pigmentary glaucoma. Pigmentary glaucoma occurs most commonly in myopic males between the ages of 20 and 50 years. This age group comprises a significant number of airmen.

A patient with pigmentary dispersion disorder may present with episodes of blurred vision, eye pain, and colored halos around lights after exercise or pupillary dilatation. Unfortunately, the condition may also be asymptomatic. The condition is usually bilateral. As a patient with either pigmentary dispersion disorder or pigmentary glaucoma becomes older, the pigmentary dispersion may diminish.

On slit lamp examination, pigmentary dispersion disorder is characterized by a generally vertical accumulation of pigment on the central corneal endothelium. This is known as a Krukenberg spindle. Gonioscopic study reveals a dense homogeneous band of pigment seen over the entire circumference of the trabecular meshwork. Signs of glaucoma (optic-nerve cupping, glaucomatous visual field loss, and/or increased intraocular pressure) may also be seen. The anterior-chamber angle is open.

The pattern of pigment deposition results from a linear vertical junction of aqueous convection currents from the nasal and temporal halves of the anterior chamber. The pigment, which does not appear toxic, then undergoes phagocytosis by the corneal endothelial cells. It has been postulated that the dispersion of pigment results from a fundamental abnormality of the iris pigment epithelium, from the radial folds of iris pigment epithelium rubbing against the lens capsule to release pigment, or both. Hypovascularity of the iris may also contribute to onset of the disorder.

Treatment

Treatment of pigmentary dispersion disorder initially involves reducing the intraocular pressure with medications. Decline of the pigment dispersion over time has been seen with improvement in intraocular pressure control. The medical treatment of pigmentary glaucoma is similar to that for primary open-angle glaucoma. Intraocular pressures in pigmentary glaucoma may fluctuate widely and often may be more difficult to control. Pressure elevations may be associated with halos or blurred vision. Pressures can exceed 50 mm Hg in the untreated patient. Topical β -adrenergic antagonists, α_2 -adrenergic antagonists, carbonic anhydrase inhibitors, and prostaglandin analogues can be effective agents for control of ocular hypertension and glaucoma associated with pigment dispersion.

Surgical treatment may be effective for pigmentary dispersion disorder. Laser peripheral iridotomy may effectively eliminate the posterior bowing of the iris in many eyes with pigmentary dispersion. This procedure may reduce the contact between the iris and the zonules, which would decrease the dispersion of pigment and prevent the development of pigmentary glaucoma. This procedure has not consistently resulted in flattening of the iris or a resolution of the pigmentary dispersion. Argon laser trabeculoplasty is often effective at reducing the intraocular pressure in pigmentary glaucoma. The effect may be lost within months, however, in older patients or those who have had glaucoma for a longer period of time.

The AME, the FAA, and Pigmentary Glaucoma

The airman medical visual standards are clearly defined in Title 14, Part 67 of the Code of Federal Regulations. According to these standards, airmen may not have any acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of

the eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying. This includes specific visual acuity requirements of 20/20, or better, corrected or uncorrected for distant vision, and 20/40, or better, corrected or uncorrected for near vision. (3rd-class airmen are allowed 20/40, or better, corrected or uncorrected for distant vision.) Pigmentary dispersion disorder and pigmentary glaucoma obviously have the potential to medically disqualify a pilot based upon the visual standards.

Successful treatment that prevents or slows the rate of long-term complications can keep an airman medically eligible. All of the commonly used topical medications for glaucoma are generally considered acceptable from the perspective of aeromedical certification. Thus, topical beta blockers (timolol, betaxolol, etc.), cholinergic agonists (pilocarpine), alpha-2 adrenergic agonists (brimonidine), and carbonic anhydrase inhibitors (dorzolamide, brinzolamide) would not preclude certification. Also, the oral carbonic anhydrase inhibitors (acetazolamide, etc.) would be acceptable medications from the aeromedical perspective.

As of the end of the year 2000, according to FAA certification records, there were 2427 airmen with an established diagnosis of glaucoma who had been certified as medically safe for flying duties, compared to 9 who had been denied certification due to a diagnosis of glaucoma. Specifically, 301 airmen held 1st-class certificates, 459 held 2nd-class certificates, and 1667 held 3rd-class certificates. While the pathology codes do not break these down further into the various types of glaucoma, discussion within the certification division indicates that these cases are certified and followed up under the same conditions as simple, open-angle glaucoma.

So, successful treatment and close follow-up by an ophthalmologist both go a long way toward keeping aviators with pigmentary dispersion disorder or pigmentary glaucoma medically fit to fly. ➔

Dr. Dumstorf was a Wright State University Aerospace Medicine Resident rotating through the Civil Aerospace Medical Institute when he wrote this report.

HIPAA and the Aviation Medical Examiner

Answers to Your Questions About the New Federal Safeguards to Protect the Security and Confidentiality of Individually Identifiable Health Information

By **Harold (Woody) Davis, JD, MD**

The Federal Air Surgeon has recently received numerous questions from aviation medical examiners (AMEs) on the effect of new regulations promulgated by the Department of Health and Human Services (HHS) under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and AMEs activities for the FAA.

HIPAA was passed by Congress to address the need for national patient privacy standards. The law includes

provisions designed to save money by encouraging electronic transactions but also requires new safeguards to protect security and confidentiality of individually identifiable health information. In 1999, HHS published proposed regulations to guarantee patients new rights and protections against the misuse or disclosure of their health records. There are actually several regulations that implement HIPAA, but the HIPAA Privacy Rule went into effect April 14, 2003.

As the implementation date for the Privacy Rule approached, there were several meetings between attorneys for HHS Office of Civil Rights and the FAA Office of Chief Counsel, as well as with the Federal Air Surgeon's staff to address the issues raised by AMEs. These meetings focused on the HIPAA Privacy, Security, and Transaction regulations. Based on these meetings, the following questions and answers have been prepared:

1. WHEN DOES AN AME BECOME SUBJECT TO HIPAA REGULATIONS?

An AME is only subject to HIPAA regulations if the physician conducts certain financial and administrative transactions electronically as set out in 45 CFR part 162. Examples of these transactions include communications with health plans for payment, for authorizations to provide care, or to make a referral. Electronic transactions with FAA do not alone make an AME subject to the HIPAA regulations.

2. HOW DOES HIPAA AFFECT AMES?

If an AME is subject to HIPAA for one of the activities set out in the above cited regulation, then all the information gathered by AMEs in their practice is also subject to HIPAA regulations. For example, the Privacy Rule includes numerous requirements related to the use and disclosure of individually identifiable health information, as well as administrative requirements such as training staff in HIPAA requirements.

If an AME is subject HIPAA, the FAA examinations, as well as information gathered during the examinations, while not triggering the requirements, must still be treated and protected as any other piece of individually identifiable health information.

3. WHAT AME DUTIES SUBJECT A PHYSICIAN TO HIPAA?

None. An AME does not become subject to the HIPAA rules by conducting airman medical examinations for the FAA and/or sharing the results of these examinations, even if done electronically, with the FAA.

4. HOW WILL HIPAA AFFECT FAA FORMS?

The application for airman medical certification (FAA Form 8500-8) currently contains a Privacy Act statement and an authorization for access to the National Driver Register. While these are sufficient for FAA purposes and require no change because of HIPAA, an AME subject to HIPAA regulations should comply with all appropriate HIPAA regulations.

5. DO AMES NEED AN AUTHORIZATION TO SEND THE AIRMAN EXAMINATION TO THE FAA?

No. The completion of an application constitutes authorization. Also, if the examination is not completed (or if the applicant attempts to withdraw authorization), the AME should still send the form and any other information gathered to the FAA.

Dr. Harold Davis an attorney in the FAA's Office of the Chief Counsel Certification Law Branch at Washington, DC, headquarters.

Continued next page

HIPAA (continued)

6. DO AMES NEED AN AUTHORIZATION TO OBTAIN CONSULTATIONS AS PART OF THE AIRMAN MEDICAL EXAMINATION?

No. As noted in #5, the application constitutes the authorization and the obtaining of consultations is part of the application process. But covered AMEs should be careful to properly record in the patient's records the obtaining of the consultation.

7. DO AMES NEED A BUSINESS ASSOCIATE AGREEMENT WITH FAA?

No. AMEs and FAA are not business associates as contemplated by the Privacy Rule. The HIPAA regulations recognize that private health information may be used for other lawful purposes such as airman medical examinations. AMEs can be assured that to the extent required by law FAA complies with all Federal statutes, including HIPAA.

These Q and As are not designed to be exhaustive about HIPAA but to address some of more common issues and concerns raised by AMEs about the act. The duties of an AME should not preset additional burdens, as it is expected that nearly all AMEs will be complying with HIPAA because of the other (non-FAA) activities they undertake in their practices. AMEs should seek local legal counsel to ensure their status and their compliance with local as well as Federal law.

If you have further questions about the Health Insurance Portability and Accountability Act of 1996, please see the following HHS Web sites:

<http://aspe.hhs.gov/admsimp/index.shtml>

<http://www.cms.gov/hipaa/>



AME STRESS BUSTER

Be sure to order enough Airman Medical Certificate forms (FAA Form 8500-8) to last one year. When you deplete your supplies, order another year's supply.

If you follow this routine for restocking your medical forms, you should never be in the stressful position of having an airman arrive for an FAA physical, only to find you are out of medical examination forms!

BEST PRACTICES from page 6

Engaged With Aviation Community

A speedy career led Dr. Crane to stay engaged with aviation and the people who fly for fun and profit. During WWII, he organized the International Order of Characters, a small group of Allied pilots stationed in the South Pacific. The organization grew through word of mouth to international status, eventually accepting into membership the very airmen who were once mortal enemies. The IOC evolved into an aviation-related foundation generating more than \$250,000 in scholarships to individuals studying for careers in aviation.

Dr. Crane is also a frequent lecturer at major airlines and corporations, sharing his ideas on safe flying and longevity with pilots and executives. His major concerns relate to how one can im-

prove health through rational lifestyle changes through exercise, the dangers of smoking, human energy concepts, plus mind-expanding ventures into yoga, enduring truths, and transcendental meditation.

Exercise Addict

No stranger to exercise, Dr. Crane tells his pilots to get plenty of exercise. Following his own guidelines, he has always enjoyed walking. So much so that he once drew a \$10 bet from a man who challenged Dr. Crane to walk from New Canaan, Vt., to Pownal, Vt., a distance of 143 miles. Accepting the challenge, he went the distance, but, unfortunately, the man died before Dr. Crane could claim the \$10.

The Future

He is a life-long friend to pilots; they call him by his first name. He's 89 years old, the most senior of senior aviation

medical examiners, still practicing after 57 years, still working hard (55 examinations per month), and still relishing each new day.

Naturally, at his age he gets occasional questions about retirement. Looking ahead to an inevitable retirement, he has selected as his eventual successor a physician with extensive experience in military medicine and in commercial aviation. Just when the transition will occur has not yet been decided.

Dr. Crane says that whenever the hint of his retirement gets around, he is implored by many of his pilots, "Jim, please don't retire," and "Jim, stay in business, and let's go flying." While he loves aviation and working with pilots, he says the day will come when he will reluctantly give up his thriving aviation medicine practice and settle down to retirement. "After all," he muses, "I'm 89...guess I can't live forever."



The HIMS Program

Tools for Recovery From Alcoholism

By Donato J. Borrillo, MD, JD

Federal Aviation Administration (FAA) Form 8500-8, questions 18n and 19o ask the applicant if substance or alcohol dependence, or abuse, has ever occurred. The aviation medical examiner (AME) should be well versed on the special issuance process required for an alcoholic pilot to become recertified and know that the FAA supports programs that lead the alcoholic aviator to recovery. This recovery program encourages the airman to self-identify, promotes rehabilitation, and, ultimately, advances aviation safety.

Background

The National Institute for Alcoholism Research has estimated that roughly 7% of people in the general population who drink or use drugs may become chemically dependent.¹ For the professional pilot, a diagnosis of chemical dependency once created a seemingly insurmountable obstacle in getting the help needed. In addition, fellow pilots and flight attendants were reluctant to intervene for fear of threatening a colleague or friend's livelihood. Because of a program designed to help such pilots retain their flight status, they can obtain assistance—without ruining their career status.

In the early 1970s, the Human Intervention Motivation Study (HIMS) grew out of a grant from the National Institute for Alcohol Abuse and Alcoholism. It found that with proper treatment the airline pilot rehabilitation rate was successful (92-95%) and cost effective.² By 1990, the grant money ran out, yet the airline industry continued the program. Eventually, the FAA itself reinvigorated the program as "HIMS II."

Confidentiality Required

The AME must understand that no such program can be successful without

The Human Intervention Motivation Study grew out of a grant from the National Institute for Alcohol Abuse and Alcoholism and the Air Line Pilots Association. It found that with proper treatment, the rehabilitation of alcoholic airline pilots could be successful and cost-effective. The AME should be well versed on this special issuance process and FAA-supported programs available to such aviators.

the highest level of confidentiality in medical records, and pilots must be assured that their treatment information is held in strictest confidence. Medical record keeping is left solely to the medical professionals directly involved in the individual case where privileged communication is legally protected. There is no label identifying a pilot participating in the program, and even the reason for the special issuance is not identified on the pilot's medical certificate.

Special Issuance Statistics

In 2002, 879 1st-class, 218 2nd-class, and 318 3rd-class special issuances were approved for substance-dependent airmen, of which a total of 1,415 were for alcoholism, and 79 for illicit drug dependence. Of those participating in the HIMS program, the relapse rate was approximately 10% over a three-year period, according to the Aviation Medicine Advisory Service.

Steps to Recertification

Identification. The first step towards rehabilitation—acknowledging the problem—is often the hardest; however, given the known ability to regain one's medical certificate with treatment, self-identification often occurs. Intervention by members of the union, flight crew, or family members may also occur.

Evaluation and therapy. After intervention, the pilot undergoes evaluation and a minimum of 28 days in an inpatient treatment program. Aftercare and an intensive outpatient treatment program follows, of which Alcoholics Anonymous (AA) sponsorship is very important. As a rule of thumb, 90 days of daily sponsorship and participation in therapy are required, and pilot peer and company sponsorship are required.

Testing, records, review. Psychologi-

cal testing is then required and record collection and review by the AME starts. Senior aviation medical examiners with specialized training³ act as independent medical sponsors and participate in the pilot's aftercare program and meet with the rehabilitating aviator, thereby ensuring an intimate knowledge of the special issuance applicant.

Peer pilots. The pilot unions work with management and the FAA to assess, treat, and gain medical clearance (within FAA standards) for the recovering chemically dependent pilot.⁴ The key to the success of the program is the peer pilot, trained individuals who willingly donate time and energy for pilots who are undergoing monitoring and recertification. Peers are available to advise and assist the recovering pilot with professional and personal issues that crop up in the course of healing. Recovering pilots must do the work of their recovery, but the pilot peers are available for guidance and support throughout the process.

Application for certification. Only after all of the above steps have been completed will a packet be forwarded to the FAA, approximately one year after intervention.

Conclusions

Using such an approach, alcoholic pilots receive the personal and professional tools necessary for recovery, all the while maintaining their status on their company's seniority list. It is incumbent upon the AME to understand that such a support system exists, and it is available to recovering alcoholic pilots.



Dr. Borrillo is the Medical Director of Occupational and Hyperbaric Medicine, The Toledo Hospital, ProMedica Health System. He is also a senior aviation medical examiner, an attorney, and a pilot with a Commercial rating.

¹ In the pilot population the drug screen positive rate is actually closer to 1%

² Nine dollars of return resulted for every one-dollar spent on treatment

³ The HIMS program sponsors training seminars, with support from the airline industry and FAA

⁴ A secondary focus is to help any pilot who has a chemically dependent immediate family member.

Atrial Fibrillation and Medical Certification

Case Report, by Charles Sweeney, MD

A 69-YEAR-OLD private pilot with 1200 hours of flight time applied for renewal of his 3rd-class medical certificate. He has a history of atrial fibrillation with use of medication. Under FAA medical guidance, this pilot is not eligible for certification under the medical standards and may not be issued a medical certificate by an aviation medical examiner. However, 14 CFR, Part 67.401 provides authority for the Federal Air Surgeon, the Manager of the Aerospace Medical Certification Division and Regional Flight surgeons to grant an Authorization for a special issuance medical certificate.

Certification Criteria

Current criteria used by the FAA for a special issuance under these circumstances include the following:

(a) Atrial fibrillation that is paroxysmal or lone (single-episode) requires airmen to demonstrate that they do not have valvular heart disease (with a 2-D echocardiogram) and that they do not have coronary artery disease (with a current maximal Bruce protocol stress test). If they have neither of these conditions, they will likely gain medical certification. Thyroid function studies should also be performed.

(b) Chronic atrial fibrillation requires annual follow-ups indefinitely. As in (a), it is necessary to initially rule out valvular or coronary disease with appropriate testing. It is necessary to perform 24-hour ambulatory heart monitoring to determine the ventricular

response. If, on Holter monitoring the ventricular response rate is greater than 130 with minimal exertion or there are sinus pauses ≥ 3.0 sec. during waking hours, medical certification will not be granted.

The FAA accepts most medications to slow the ventricular response or maintain a sinus rhythm. Treatment of atrial fibrillation is the only situation where low doses of amiodarone are acceptable. The use of flecainide is unacceptable when there is evidence of left ventricular dysfunction or a recent myocardial infarction.

In general, chronic or paroxysmal atrial fibrillation applicants who are 65 years or older must be taking anticoagulation medication. Applicants must also be taking warfarin anticoagulation if they have *risk factors* for embolism.

Risk Factors

High risks include history of stroke, transient ischemic attack or thromboembolism, moderate to severe left ventricular dysfunction (LVEF < 40%), mitral valve disease, coronary disease, or prosthetic valves.

Lesser risk factors are hypertension, diabetes mellitus, thyrotoxicosis, and age 65-74.

Applicants over 75 years of age must be on warfarin anticoagulation to gain medical certification. If the individual is treated with aspirin, TiclidTM, PlavixTM, or similar medication, no adjustment period is required. If the individual is being treated with CoumadinTM, a

Under FAA medical guidance, this pilot is not eligible for medical certification and may not be issued a medical certificate by an aviation medical examiner. However, 14 CFR, Part 67.401 provides authority for the Federal Air Surgeon, the Manager of the Aerospace Medical Certification Division and Regional Flight surgeons to grant an Authorization for a special issuance medical certificate.

three-month medication adjustment and stabilization period is required before the applicant can be considered for a medical certificate. The FAA requires that the International Normalized Ratio (INR) levels be between 2.0 and 3.0.

Outcome

The pilot in question had intermittent atrial fibrillation, was no longer in atrial fibrillation, was currently on DigoxinTM and aspirin, and had a stress test that was normal without evidence of ischemia or arrhythmia. The airman did not have any of the risk factors, so warfarin anticoagulation was not required. Thus, the applicant was given special issuance under Part 67.401.



Dr. Sweeney was a Wright State University Aerospace Medicine Resident rotating through the Civil Aerospace Medical Institute when he wrote this case report.

Another Certification Physician Called to Active Duty

Dr. **Henry Boren**, a medical review officer with CAMI's Aerospace Medical Certification Division, was recently recalled to active military duty as a medical officer and is now stationed with American Armed Forces in the Middle-East, somewhere "in the desert."

Dr. Boren, from Ada, Okla., has worked in the the FAA Aerospace Medical Certification Division for 21 years.



Dr. Boren

Here's a recent E-mail note from Dr. Boren:

Hello.

All is well in the desert. Too much sand. We've had two sand storms so far since I've been here. Sand gets onto and into everything. Living in tents (tent lodging, tent latrines, tent showers) and MREs every day. Things are improving. We now have a small BX (in a tent). They say they are going to set up a gym. We also now have a tent mess hall. They

are serving breakfast and dinner. Temp is not bad. Cool enough for a jacket at night, about 80-90 during the day. I've been flying twice so far. Hope to fly a lot more. Tell my buddy, Steve, I wish he were here. (Just kidding).

Excitement about 2 days ago. Woke up to near-by explosions and the sound of what seemed to be small arms fire. You can guess what the first thoughts were. Not what we thought initially. A F-15 nose gear collapsed on take-off. The plane caught on fire and the noise was the bombs and ammo on the plane going off. Don't have the opportunity to get to a computer for e-mail very often so I have to limit the messages I can send. Tell everyone at the FAA, AMCD thanks for caring and I hope I'll see all of you again soon.

Henry, the Desert Fox

Video Award

The FAA Office of Aerospace Medicine's Civil Aerospace Medical Institute (CAMI) and the Mike Monroney Aeronautical Center's Information Media Division were honored with two "Gold Aurora Awards" for the production of two educational videos for civil aviation pilots entitled "Tropical Survival" and "Will to Survive."

These two videos are part of the Global Survival video series developed by CAMI's Aerospace Medical Education Division. The two awards were presented to CAMI by the Mike Monroney Aeronautical Center Director, **Lindy Ritz**.

The Aurora Award, established in 1996, is an independent film and video competition for commercials, cable programming, documentaries, industrial, instructional, and corporate videos. Aurora Awards recognize individuals in the film and video industries

who have achieved that same ability to captivate their audiences with the displays produced from their own creative forces.

Competitors come from private and corporate production, group advertising agencies, and television stations throughout the country. The Awards is an international

competition to recognize excellence in programs and commercials that would not normally have the opportunity to compete on a national level, and they focus on non-national commercials, regional or special-interest entertainment, and corporate-sponsored film and video. Entries have come from across the US and abroad.



AWARD-WINNING VIDEO PROJECT. CAMI director **Melchor Antuñano** and Mike Monroney Aeronautical Center director **Lindy Ritz** (center, with "Gold Aurora" trophies) congratulate members of the production team.

Charting the Next Century of Flight

Remarks Made by

Marion C. Blakey

**Administrator, Federal Aviation
Administration**

Centennial of Flight Kick-Off Event
National Air and Space Museum
Washington, D.C.
December 17, 2002

This morning, along with Deputy Secretary Michael Jackson and others, I had the honor of representing the FAA at the National Air & Space Museum ceremony to kick off a year-long celebration leading to the 100th anniversary of powered flight. Relatives of the Wright Brothers, Charles Lindbergh, and Amelia Earhart, also participated.

This commemoration has a special meaning for the FAA because this agency and its predecessor agencies have helped chart the course of aviation for more than three quarters of a century — a role that began in 1926, just 23 years after the Wright Brothers first flight at Kitty Hawk and a year before Charles Lindbergh first flew to Paris. It continues to this day as we work with the aviation community to shape aviation's second century.

The theme we have chosen to celebrate the FAA's role in this continuum is "Charting the Next Century of Flight," because it aptly captures, I believe, the agency's historical and future role — charting the highways of the sky and envisioning and plotting the future course of aviation.

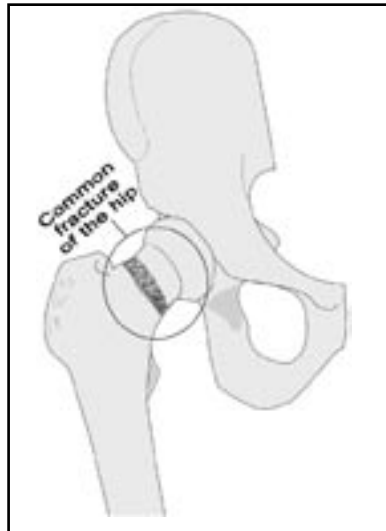


As we look back over the past hundred years, we have seen aviation progress from pioneering barnstormers and air mail pilots to regulated commercial flying, the advent of radar and jet aircraft, and now an increased reliance on satellites, computers, and a host of sophisticated electronic systems. Through it all, it has been the people in aviation, especially the people of the FAA and its predecessor agencies, who have stepped up to the challenges and made the crucial difference.

Thus, over the next year, as we commemorate aviation's achievements and milestones, we will try to focus special attention on the people who have made them happen. You'll be hearing more about the various planned events throughout the year. I urge all FAA employees to take part in these events whenever possible because as we lead the way in charting the next century of flight, the agency can look back with justifiable pride in what our predecessors have already helped aviation accomplish.



Hip Fractures



A HIP FRACTURE IS MORE DEVASTATING THAN A NON-FATAL HEART ATTACK. MOST SURVIVORS WILL NEVER BE THE SAME.

LET'S continue discussing the immense value of exercise, especially walking, in keeping us healthy. The available information about heart attacks is staggering and gets prime coverage. Yet, comparatively little is written about the 350,000 hip fractures that occur each year. Only about 25% of these patients ever return to a normal lifestyle, and many die. *In fact, a hip fracture is more devastating than a non-fatal heart attack.* Most survivors will never be the same.

Some risk factors for hip fractures

- Poor physical fitness (Walking only four hours a week reduces a woman's chance of hip fractures by 40%.)
- Heredity is a strong factor, especially in women whose mother has had a hip fracture. You can't change your genes, but a family history of hip fractures give you advance warning so that you can take measures to protect yourself.
- Slender, small-boned women are especially susceptible to hip fractures.
- Low-calcium diet.
- Smoking and heavy alcohol use increase risk of hip fractures. (Alcoholics do have trouble with their balance.)

- Neuromuscular or musculoskeletal problems.
- The biggest factor is increased age. Hip fractures are a constant threat to the elderly.
- Use of sedating medications. (Anti-anxiety medications, sleeping pills, etc.)
- Poor vision, especially at night. Poor lighting.
- Objects scattered about the floor. (Loose rugs and carpets, shoes).
- Flimsy, unstable furniture.
- Resting pulse rate 80 or over.
- Inability to rise from a chair without using your arms.

Costs of hip fracture

- To begin with, start with about \$38,000 per patient by the time the initial hospital stay and *brief* rehabilitation is over. Does not include cost of long-term care.
- The cost to Medicare in 1991 was \$2.9 billion. No telling what it is now.
- Long-term, or lifelong care in a skilled nursing facility can amount to *staggering* expenses.

Dr. Stoutt is a partner in the Springs Pediatrics and Aviation Medicine Clinic, Louisville, Ky., and he has been an active AME since 1960. No longer an active pilot, he once held a commercial pilot's license with instrument, multi-engine, and CFI ratings.

TOPICS AND ISSUES

Just for the Health of Pilots

By Glenn R. Stoutt, Jr., MD, Senior
FAA Aviation Medical Examiner

What is a hip fracture?

A hip fracture is a break near the top of your thighbone (the femur, the largest bone in the body) where it angles into your hip socket. The fracture almost always (90%) occurs in a hip joint already weakened by osteoporosis, and usually is caused by a fall. A loss of bone density (osteoporosis) results in a hip joint that is weak, brittle, thin, porous, low in calcium, and prone to shatter after a fall. It occurs more often in postmenopausal women (85%) and is directly related to aging, becoming a threat after about 55-60 years of age, and a constant specter after 65.

I'm a young pilot, why should I worry about all this?

You won't be young forever. If you are in, approaching, or past the Baby Boomer age, you are already at risk. Also, your parents are at *significant* risk. If they need long-term care and are "financially disadvantaged"—read, "broke," you may have to dip into your own savings. *This is in addition to the tremendous emotional and physical pain of dealing with this devastating condition.* Call 800-824 BONES for a free brochure on falls prevention. Read it to your parents. Read and heed yourself. The brochure is from the *American Academy of Orthopaedic Surgeons*. (OK, so they spell it orthopaedic instead of orthopedic.)

Continued ➤

Your best defenses against having a hip fracture

- **Exercise!** Weights and resistance machines are great. *Still, walking is the absolute best exercise of all.* It costs nothing.
- Re-read above.
- Make sure you get at least 1500 mgs (milligrams) of calcium per day from food or supplements. Calcium carbonate is just fine and the cheapest. Calcium citrate (absorbed slightly faster, but not enough to really matter) and oyster-shell calcium are more expensive, and the heavily advertised brand of coral calcium probably is a waste of your money. You can buy generic calcium carbonate for about a nickel a day. Take calcium carbonate with meals, and take only about 500-600 mgm at a time.
- All dairy products contain calcium—get the low- or no-fat kinds. Foods that are a good source of calcium: greens (all types—spinach, kale, turnip greens), broccoli; kidney beans; green beans; soybeans; almonds; seafood such as salmon, sardines, shrimp, scallops; calcium-enriched orange juice.
- Vitamin D: (called the “sunshine vitamin” because sunlight produces vitamin D in the skin) It helps in the absorption of calcium. Most multivitamins contain the recommended daily dose of 400 IU (International Units).
- *With a strong body, you dramatically decrease the risk of a fall, usually from slips and trips.* A strong body is much more stable. What you want!

Yours for good health and safe flying,

Glenn Stoutt

Note: The views and recommendations made in this article are those of the author and not necessarily those of the Federal Aviation Administration.

EXERCISE!



Some facts about hip fractures



- Ninety percent of all hip fractures are the result of falls.
- About one in five victims will require long-term nursing care. .
- Falls (“slips and trips”) are the leading cause of injury deaths in the US in people 65 and older.
- Of all fall deaths, 60% involve people 75 and older.
- About 25% of those over 65 die as a direct result of their hip fractures or complications within the next 12 months.
- Because of our aging population the 350,000 hip fractures a year now are expected to reach 500,000 by the year 2040.
- About half of all women who reach age 90 will have suffered hip fractures.
- Sixty percent of hip fractures from falls occur at home.
- The lifetime chance of hip fractures is 1/7 in a female and 1/17 in a male. Even though females have a higher incidence of hip fractures, the males have a greater chance of dying.
- People over 85 are 10-15% as liable to have hip fractures as people age 60-65.
- Hip fractures are less common in rural than urban areas. (Rural people are usually more active, in things such as farming, lifting, walking.)
- More common in northern areas, where there is less exposure to sunlight.
- The majority of patients older than 75 need to be placed in skilled nursing facilities.
- Those over 65 will need walking aids (walkers or canes) for several months, and nearly half will permanently need these aids.

Theme Seminar Registration Now Available Via E-Mail

By Doug Burnett

The current registration procedure for aviation medical examiner (AME) theme seminars requires that the Aerospace Medical Education Division (AMED) mail out invitations to AMEs that are designated for the respective seminar within the geographical area approximately three months prior to the seminar date.

For Basic AME seminars, the regional offices provide the names and addresses of attendees, and the AMED sends them invitations by mail.

AMEs usually respond to these invitations by mail or phone and are considered to be tentatively registered until AMED responds with confirmation letters. Final registration takes place at the seminar. This system is slow, labor intensive, and does not take advantage of convenient Internet functions.

Now, however, AMEs may register for seminars via E-mail at:

9-AMC-AME-Sem-Registration@faa.gov.

This new system will provide AMEs and other attendees with a simplified method for seminar registration and rapid response from the AMED. In addition, it will provide an easy method for communicating with the AMED and the regional offices.

This new system can only work if you provide your E-mail address. Please send your E-mail address to the above address.

Note: Providing an E-mail address is voluntary.

The new system still requires invitations to be mailed by the AMED (until a sufficient number of E-mail addresses are obtained), but AME responses and confirmation letters from the AMED are sent via E-mail for those AMEs providing their E-mail addresses.

The AMED plans to transition to complete on-line registration in FY 2004, pending the receipt of most AME E-mail addresses.

Aviation Medical Examiner Seminar Schedule

2003

May 5-8-----San Antonio, Texas -----N/NP/P (3)
June 9-13-----Oklahoma City, Okla. -----Basic (1)
July 18 - 20-----Chicago, Ill. -----AP/HF (2)
August 15 - 17-----Washington, D.C./McLean, Va. ----CAR (2)
September 15 - 19-----Oklahoma City, Okla. -----Basic (1)
October 3 - 5-----Salt Lake City, Utah -----OOE (2)
November 3 - 7-----Oklahoma City, Okla. -----Basic (1)

2004 Basic Seminars

March 15-19-----Oklahoma City, Okla. -----Basic (1)
June 21-25-----Oklahoma City, Okla. -----Basic (1)
September 13-17-----Oklahoma City, Okla. -----Basic (1)
November 15-19-----Oklahoma City, Okla. -----Basic (1)

CODES

AP/HF Aviation Physiology/Human Factors Theme
CAR Cardiology Theme
OOE Ophthalmology - Otolaryngology - Endocrinology Theme
N/NP/P Neurology/Neuro-Psychology/Psychiatry Theme

(1) A 4½-day basic AME seminar focused on preparing physicians to be designated as aviation medical examiners. Call your regional flight surgeon.

(2) A 2½-day theme AME seminar consisting of 12 hours of aviation medical examiner-specific subjects plus 8 hours of subjects related to a designated theme. Registration must be made through the Oklahoma City AME Programs staff, (405) 954-4830, or -4258.

(3) A 3½-day theme AME seminar held in conjunction with the Aerospace Medical Association (AsMA). Registration must be made through AsMA at (703) 739-2240. A registration fee will be charged by AsMA to cover their overhead costs. Registrants have full access to the AsMA meeting. CME credit for the FAA seminar is free.

The Civil Aerospace Medical Institute is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.

AMEs who register for a seminar via E-mail will receive a confirmation approximately one month prior to the seminar for which they registered.

To register via E-mail for **any** AME Seminar, please provide the following information:

- E-mail Subject: Seminar Location and Date
- Full Name
- Permanent E-mail address
- Mailing address
- Telephone number, FAX number
- AME number

Anyone experiencing difficulty in E-mail registration can still contact the AMED by phone at (405) 954-4830 or (405) 954-4258.

Your assistance in transitioning to the new system (by providing your E-mail address) will be greatly appreciated. →