

Virtual Flight Surgeons® Inc.

“Our Physicians...Your Solution”

Quarterly Aeromedical Newsletter

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FAA Aeromedical Certification Policy Update



New AME Guide – The FAA recently posted a new version of the Online Guide to Aviation Medical Examiners. This is the document that expounds on the medical standards outline in FAR Part 67. You can access the Guide at http://www.faa.gov/other_visit/aviation_industry/designees_delegations/e_ame_guide/search/. Among some of the changes are an enhanced search function and new AME Assisted Special Issuances for melanoma, testicular cancer, and breast cancer.

Liver Disease – Recently our office has handled a larger than normal number of cases of substantial liver disease, including several pilots requiring liver transplants. Luckily for US pilots, the FAA is willing to consider Special Issuance Authorization (SIA) in such cases provided the pilot is indeed safe to fly following transplant without adverse side effects from any required immune suppressive medications. As of the end of March 2006, there have been 6- 1st class SIAs, 5 – 2nd class SIAs, and 35 – 3rd class SIAs.

Standards for Space Travel – If anyone has plans to explore the outer envelope, the FAA recently published “Guidance for Medical Screening of Commercial Aerospace Passengers.” Information and links to related policy can be found in Vol 44 No. 1 of the Federal Air Surgeons Bulletin at http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/fasmb/

Regulation Change - Effective July 21, 2006, the FAA will amend 14 CFR Part 67 Medical Standards and Certification to automatically medically disqualify any person holding an airman’s medical certificate subject to drug and alcohol testing who refuses a required test or who has a breath alcohol concentration of 0.04 mg/dl or greater. Any confirmed refusal to test or positive test must be reported to the FAA within 2 days. This requirement also applies to pre-employment testing.

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Policy Update, continued from Page 1

The FAA comments in the Final Rule reflect the objections of the ALPA Aeromedical / Virtual Flight Surgeons office to making a medical diagnosis from a single positive test. Our office regularly sees cases of positive tests from careless or ignorant behavior by pilots who do not have a substance/alcohol abuse diagnosis after a careful evaluation.

The FAA states it has the authority to medically disqualify pilots for alcohol abuse under a broader definition than the medically acceptable ones published by the American Psychiatric Association's Diagnostics and Statistics Manual (DSM-IV).

Unfortunately, this may require pilots with a positive test, but without a medically valid diagnosis, to undergo rehabilitation for a condition they do not have before regaining a medical certificate. In the absence of a cooperative corporate alcohol program, many pilots will have to demonstrate two years of abstinence to regain medical certification. Medical certification will be contingent upon continuous total abstinence from alcohol and illegal substances for the remainder of their flying careers.

For more information on alcohol abatement programs in corporate aviation, see our web site at www.AviationMedicine.com and type "Alcohol" in the search box. The link to the Final Rule in the Federal Register June 21, 2006 is found <http://dmses.dot.gov/docimages/p85/402329.pdf>. VFS corporate members should contact the VFS physician staff for any questions. Others may contact VFS through the Confidential Questionnaire on our web site.

Medication Update



Byetta – The FAA recently approved for all classes the use of Byetta (exenatide) as an additional medication allowed to assist with blood sugar control in adult onset diabetics. Byetta is the first of its kind injectable medication known as an incretin mimetic. For professional pilots struggling to control their diabetes without insulin, this was a welcome addition. Once insulin is required, a pilot can only fly under a Special Issuance for third-class privileges. More information can be found at Byetta.com and in the diabetes article on our web site.

Optivar (astelin) eye drops – Astelin eye drops are authorized by the FAA for the treatment of allergic eye itching since the medication is not absorbed systemically. Note, however, that Astelin nasal spray is still not allowed because of potential sedation side effects. As with any new medication, there should be an appropriate ground trial before flying. Optivar should also not be used during flight or with contact lenses.

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President's Corner



Hypoxia - Still A Killer Quay Snyder, MD, MSPH

In the Fall 2005 issue of the VFS Newsletter, Dr. Phillip Parker wrote about the ongoing safety threat of hypoxia in aviation and the need for education and training. Vendors are responding to this need and offering several different types of training to pilot groups. Unfortunately, in some cases, this training is being administered in a cavalier fashion without careful regard for the safety of participants. Other training may not provide pilots with the learned behavior necessary to respond quickly and appropriately to an in-flight emergency due to hypoxia.

Recent technology allows some degree of hypoxia training to be conducted without using a hypobaric chamber. The technology uses mixed gases at normal atmospheric pressures to reduce the percentage of oxygen available. The technique is termed "normobaric" hypoxia and the equipment is often described as Reduced Oxygen Breathing Device (ROBD). This equipment is portable and less costly to use than chamber training.

Although the risk of decompression sickness and trapped gas problems are eliminated by using this technique, significant risks still remain to individuals with underlying medical problems when exposed to prolonged hypoxia.

Pre-participation medical screening is critical to avoid complications of training that could adversely affect a pilot's medical certification, health or career. Participants should hold a valid medical certificate from the national

certifying authority administered by an aviation medicine physician. Additionally, an interval health questionnaire should be used to detect adverse medical conditions that may have developed between the time of medical certification and the hypoxia training.

"Screen-out" criteria which would disqualify a person from training must be carefully defined. Conditions such as significant heart disease, history of stroke, carotid artery disease, seizures, migraines, pulmonary (lung) disease, sickle cell anemia and peripheral vascular disease present increased risks for complications of the training. Participants should understand these risks and sign an informed consent to continue the training, or have their physician's approval to undergo this exposure.

The recognition of two key points determines the value of hypoxia training. First, the pilot must *recognize early signs* of hypoxia. Secondly, the pilot must *immediately take corrective action* to don an oxygen mask to rapidly clear those symptoms. This demonstration accomplished neither.

The prolonged exposure to hypoxia required to demonstrate advance symptoms places a person at increased medical risks, but fails as an educational tool to teach early recognition and prompt corrective action. Training given without the benefit of a simulator relies on recognizing advanced physical signs of hypoxia rather than the subtle cognitive deficits that present much earlier in the aircraft environment, but are just as lethal. Teaching behavior to immediately don an oxygen mask and select 100% oxygen is important to avoid aviation mishaps in an environment where the time of useful consciousness is markedly reduced.

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President's Corner (Continued from Page 3)

In a letter to the editor of *Aviation Safety World* published by the Flight Safety Foundation, I listed six issues to be addressed by companies and individuals seeking hypoxia training. The optimum training for hypoxia using mixed gas breathing techniques should combine several elements.

1. Didactic sessions directed at the physiology of hypoxia and hyperventilation are critical for pilot education prior to experiencing the effects.
2. Appropriate medical screening of participants is prudent from a liability perspective and required from an ethical perspective.
3. Administration of the training should be conducted in a safe manner highlighting the seriousness of this condition in aviation.
4. Training should be directed toward early recognition and prompt corrective action when exposed.
5. When possible, providing the training in a simulator allows a more realistic demonstration of the subtle dangerous effects of hypoxia and practice of the desired learned behavior to correct the condition.
6. Individuals and companies seeking hypoxia training should thoroughly investigate vendors for attention to participant safety and educational value in each program.

The staff of Virtual Flight Surgeons, Inc. actively encourages aviators to undergo hypoxia awareness training. Training may include hypobaric chamber "flights", simulator based normobaric hypoxia or static normobaric hypoxia exposure. The choice depends on the level of training desired and an acceptable risk analysis. All may be done safely when conducted carefully. Each can be dangerous if conducted without proper attention to medical risks. Hypoxia kills too many pilots. Training does not need to add to this total. *Caveat emptor!*

Quay Snyder, MD

Note: Corporate clients of VFS subscribing to the Complete and Streamlined Aeromedical Services Programs may review their hypoxia procedures, training goals and possible vendors with VFS physicians at no charge as a standard component of our annual safety and procedures analysis. Other interested pilots may contact VFS through the Confidential Questionnaire at www.AviationMedicine.com for specific advice.

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Pilot and Controller Health



Laser Eye Surgery – Is it for you? by Phillip E. Parker, MD, MPH

It's that time of year where more of our attention turns towards sunscreen and sunglasses. For many pilots and controllers, the ability to wear non-prescription sunglasses is just one more reason to consider refractive eye surgery such as laser surgery. The FAA estimates that more than half of civilian pilots in the U.S. need some form of vision correction, such as glasses or contacts. More and more frequently, individuals are also turning to the various surgical options for vision correction.

Among the more commonly encountered procedures are PRK and LASIK and the older RK. The advantages of PRK and LASIK over RK include more precise correction of refraction and astigmatism, less scarring, glare and weakening of the cornea due to thinner layers of cornea affected, quicker healing and less discomfort. The LASIK has the added advantages of minimal central haziness since the epithelium is intact and the ability to perform the procedure on both eyes at once. An outcome closer to 20/20 is expected and no "overcorrecting" for future remodeling of the cornea is required. Revisions are possible, but less common. The potential downside to LASIK is flap instability preexisting for extended periods of time. One should clearly discuss the risks and benefits for any procedure, including the number performed by your specialist and the complication rate.

A potential problem following such procedures is that the pilot's original medical certificate still bears the limitation, "Must wear corrective lenses." A ramp check by an FAA inspector may be awkward, even though the pilot meets the FAA standards for vision without correction. The inspector has no way of verifying that fact and may issue a violation. Although the chances are the situation may ultimately be resolved in favor of the pilot, avoiding these administrative hassles is better by simply carrying a copy of the FAA Form 8500-7 (available from our website) documenting vision correction following surgery until the time of the next medical when your limitation can be removed from the medical certificate. Remember to report the surgery on your medical examination as well.

In the past, several major airlines would refrain from hiring pilots who had undergone refractive surgery or would delay the hiring for an arbitrary observation period following the surgery. Most major U.S. carriers now hire pilots who have had refractive surgery. All airlines require the pilot to have visual acuity, corrected or uncorrected, that meets the FAA First Class Medical standards, 20/20 in each eye at distance with or without correction. They also require pilots to have properly reported their surgery to the FAA as noted above.



One note of caution is in order for those trying to correct one eye for distant and one for near. This procedure will make the pilot functionally monocular, and the FAA will require at least a six-month observation period before considering return to flying duties.

Pilots can find much more detailed information by searching for our articles on "vision" using the keyword feature on our web site. There are also a number of relevant links including a link to the new FAA pilot safety brochure entitled "Information for Pilots Considering Laser Eye Surgery."

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Royal Jordanian Medical Conference – As the Chief of Aerospace Medicine for the Colorado Air National Guard, Dr. Phillip Parker was an invited guest at the Royal Jordanian Medical Conference in April. Jordan and the Colorado Air National Guard are “Partners in Peace” exchanging medical practice experiences. Among the highlights were visiting the Jordan River, Dead Sea and Petra where the last Indiana Jones movie was filmed and dining with the Surgeons General from Jordan, Turkey, Egypt, Iraq, and the Director of Public Health from Great Britain.

Corporate Aviation Safety Seminar (CASS), Phoenix, AZ - In May, over 400 safety representatives from business aviation attended CASS, which was sponsored by the NBAA and Flight Safety Foundation. Dr. Snyder met with VFS clients and participated in the FSF Corporate Aviation Committee, dealing with evolving safety concerns in business aviation.

78th Aerospace Medical Association (AsMA) Annual Scientific meeting, New Orleans, LA – Dr. Snyder gave a presentation on careers in civilian Aerospace Medicine at this forum in May, attended by representatives from over 60 countries. He also attended the Airline Medical Directors annual meeting and the one day seminar for the Civil Aeromedical Association. As a part of the meeting, Dr. Snyder participated as a member of the editorial Board of the international medical journal *Aviation, Space and Environmental Medicine*.

National Business Aviation Association – In a meeting with the NBAA, Dr. Snyder proposed initiating an educational program to address alcohol and substance abuse in business aviation, mirroring the highly successful Human Intervention and Motivation Study (HIMS) program in the airline industry.

Flight Safety Foundation (FSF) – Dr. Snyder met with leaders of FSF to address normobaric hypoxia training safety risks and steps to educate potential consumers on how to select reliable and credible vendors. (See President’s Corner)

Westchester Aviation Association (WAA) – In June, Dr. Snyder gave two presentations to corporate business operators and the WAA Safety and Security Seminar on fatigue management strategies in aviation and medical standards updates.

Annual Rocky Mountain EAA Regional Fly-In, Denver, Colorado – In June, Dr. Snyder gave a presentation at the EAA’s pilot safety seminar on “Tips for Taking Your Medical Examination.” He addressed Aviation decision-making and encouraged pilots to be healthy, safe and legal. Wings credit was given for attendance.

Ninety-Nines Annual Convention, Washington, DC - Dr. Parker will speak at the upcoming Ninety-Nines Annual Convention in July, providing a briefing on, “Tips to Avoid Commonly Encountered Problems with Aeromedical Certification.”

59th NBAA Annual Convention and Meeting, Orlando, FL - VFS will exhibit at the upcoming NBAA Annual Convention in October. Dr. Snyder will be on hand, as well as Catherine Cazorla, VFS Director of Operations, and Rhonda Sharbini, VFS Clinical Case Manager. If you are attending, make sure to stop by and see us at Booth 4309!



NATCA News

Dr. Snyder spoke on behalf of NATCA at the Federal Air Surgeon's meeting with all Regional Flight Surgeons and many deputies at the Aerospace Medicine Association's Annual Scientific meeting. Feedback from the Regions included positive comments regarding the timeliness of ATCS reporting of conditions and the completeness of the information on controllers who have used VFS physicians to report their conditions. The completeness allows for faster medical qualification determinations.

Regional Flight Surgeons are sensitive to the medical privacy concerns of ATCSs and understand if they are reluctant to report some conditions through their supervisors or facility managers. Controllers are welcome to contact the Regional Flight Surgeon's staffs directly about medical concerns or authorization to use a particular medication. Calls should be made during routine office hours. Emergent calls during non-office hours may be placed through the Regional Operations Centers and requesting to speak with the flight surgeon on call.

Controllers may also contact Virtual Flight Surgeons at 720-857-6117 or through the VFS web site at www.AviationMedicine.com. VFS physicians can confidentially inform controllers of FAA policies. Controllers still have the responsibility to report use of medications or visits to healthcare providers to the Regional Flight Surgeon's office and on their next medical application.

VFS is working with the Federal Air Surgeon to develop policies on position-specific and facility-specific Special Consideration for a host on currently disqualifying medical conditions. Safety and controller health concerns need to be addressed in each case. Future policies may allow the retention of controllers with conditions that are currently permanently disqualifying.

Other areas of discussion include updating of ATCS medical standards, the current lack of ability for an ATCS to request an evaluation for alcohol abuse without requesting treatment through EAP and alcohol testing policies published by FAA AHR. Any NATCA members having specific concerns that they feel could be addressed may contact their Regional Vice President or VFS directly.



Ask the Doc

Question: I have been diagnosed with gastroesophageal reflux disease (GERD) and my physician prescribed medication to relieve the symptoms. Am I still eligible to fly/control?

Answer: Yes. GERD is a common condition in which acid from the stomach flows up the esophagus and even back to the mouth. The symptoms include a burning sensation in the mid-chest (heartburn), a sour taste in the mouth and increasing severity with some irritating foods. Alcohol and tobacco also are known to exacerbate the symptoms. The condition can result in changes to the lining of the lower esophagus if not treated. These changes, termed Barrett's esophagus, could progress to cancer if left untreated.

A variety of treatments are both effective and authorized by the FAA. Most frequently used are proton pump inhibitors (Nexium, Aciphex, Prevacid, Prilosec) and H2 blockers (Axid, Pepcid, Zantac). Antacids are also used for quick symptomatic relief but are not effective in long-term control of the condition. Pilots using these medications should "ground test" the medications for two days before flying to insure there are no adverse side effects. The visit to the physician and the use of the medication should be reported at the time of the pilot's next FAA medical examination. Air Traffic Controllers should report the evaluation and use of the medication to the Regional Flight Surgeon's (RFS) office (or to a supervisor) by the time of the next scheduled duty. See the "Medications" section at www.AviationMedicine.com for pilots and the FAA's Policy on Medications for Air Traffic Controllers in the ATC section of our web site.



Spotlight—Your VFS Staff

To better acquaint you with the physician and administrative team who serves you, VFS will profile a staff member each quarter. This quarter's spotlight is on the newest member of the VFS Team, Rhonda Sharbini.



Rhonda is pictured with her husband, Waleed, and her children (left to right), Nicholas, Nadia and Säid.

Rhonda Sharbini joined our staff in June as a Clinical Case Manager. She hails from Mentone, Indiana but spent the past 22 years serving on active duty in the Air Force. She trained as an Independent Duty Medical Technician, focusing on Emergency Room care and performing as the sole medic on deployments. She spent the last several years of her career as the Superintendent of an Aerospace Medicine Squadron, overseeing care for the military members on flight status. She holds a Bachelor's Degree in Liberal Arts, with an emphasis in Psychology. She is a Licensed Vocational Nurse (LVN) and holds instructor/certification in basic life support and advanced cardiac life support. As a Case Manager, Rhonda will assist the physician staff in providing our world-class aeromedical services to all our pilots and controllers. In her free time, she enjoys reading, cooking, gardening and walks with her family. She also spends time with the four-legged

members of her family pictured at right, Katrina and Rita.



Your VFS Newsletter



Our services are provided to you as a benefit from your company flight department or a membership benefit from your union or aviation association. VFS stands ready as the only board certified aerospace medicine physician group available to provide you the assistance you need. Our physicians are always a telephone call or email click away. We can respond to your medical questions and provide advice on any potential impact on your FAA

Airman's Medical Certificate for medical conditions you might develop. All client discussions with our staff members are completely confidential and risk free. VFS is proud to be your one source for aeromedical advice and FAA medical certification waiver assistance.

We welcome your comments and suggestions! Our goal is to make this newsletter useful and informative for all our clients. If you have an idea for a topic you would like covered or have a comment, please contact our

Director of Operations, Catherine Cazorla via email at: ccazorla@aviationmedicine.com.

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Welcome to our Newest Clients:

NASA Dryden Research Center

THE VFS GOAL IS TO KEEP OUR CLIENTS HEALTHY, SAFE & MEDICALLY CERTIFIED!

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