

Virtual Flight Surgeons® Inc.

“Our Physicians...Your Solution”

Quarterly Aeromedical Newsletter

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FAA Aeromedical Certification- Policy Update



Welcome Dr. Lenchner - VFS Welcomes another “Steve” to the Western Pacific Regional Flight Surgeon’s Office. Stephan Lenchner, MD is board certified in Family Practice and a general aviation pilot as well. Dr. Lenchner brings a wealth of experience as an AME for 19 years and joins Drs. Stephen Griswold, MD and Stephen Goodman, MD, the Senior Regional Flight Surgeon.

Acceleration in Aviation: G-Forces – The FAA Office of Aerospace Medicine recently added to their list of available pilot safety brochures. This one astutely shows that “G’s” aren’t just a problem for fighter pilots. You can find the new brochure at: http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/med_pilots/safety_brochures/.

Medication Update

Byetta Update - For over a year, the injectable medication Byetta (exenatide) has been acceptable to the FAA with Special Issuance/Consideration as an option for all classes of diabetic pilots and controllers not having sufficient control of blood sugar on oral medications. Once insulin is required, pilots can only be certified for 3rd class operations and controllers have increased work restrictions. There is a 2-week observation period when replacing existing oral medications with Byetta and a 30-day observation required when adding Byetta to existing oral medications. These periods are set to ensure aviation safety by making sure there are no adverse effects such as hypoglycemia.



Ranexa (ranolazine) - Though this medication’s exact mechanism of action is unknown, it is typically used for chronic angina. Its main side effects can include syncope (passing out) and dizziness and is unacceptable for use in the aviation environment.

Azilect – The FAA confirms they are still reviewing this medication, and new waivers for its use in treating Parkinson’s are not currently being granted.

Amantadine – As the FAA reexamines which therapies they will allow for Parkinson’s, we have seen an increase in neurologists proposing to add Amantadine to treatment regimens for this disorder. Amantadine is allowed for use in treating influenza. Unfortunately the FAA will not, however, allow its use in treating Parkinson Disease.

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Medication Update (continued)

Copaxone – Also known as glatiramer is an immunomodulator that shows effectiveness in controlling the symptoms often caused by Multiple Sclerosis. The FAA will allow use of this medication as long as there are no adverse side effects. Both MS and copaxone require a waiver before returning to aviation duty.

Sublingual Immunotherapy (SLIT) – With Spring upon us, inquiries regarding effective approaches to addressing seasonal allergies are definitely on the rise. There is a related article on our website that discusses the Aeromedical impact of many of the most common therapies for allergies. For some, Immunotherapy (IT) or “desensitization injections” have provided significant relief, and IT is allowed for airmen and controllers as long as there are no adverse effects. A newer approach that is showing some promise is SLIT which would avoid the need for the actual injections. Unfortunately since this therapy is not currently FDA approved, the FAA does not allow it either.



VFS News

USAF School of Aerospace Medicine - Brooks AFB, TX. Dr. Snyder visited USAFSAM in January, to provide instruction to USAF Aerospace Medicine physicians on commercial aviation medical policies and controversies, as well as information on educational seminar on alcohol treatment programs in aviation. He also served on a panel with medical representatives from NTSB, FAA, the airlines and ICAO for a half day presentation to students and faculty on different perspectives on pilot health and safety issues.

Cessna Aircraft Company Safety Stand Down - Wichita, KS. Dr. Quay Snyder was invited to participate in this annual event, briefing the 120 Cessna pilots on medical certification policies.

McDonalds Corporation Pilot Meeting - DuPage, IL. Dr. Snyder was also on hand in February to provide a

presentation to the pilots, flight attendants, mechanics and dispatchers on drug and alcohol testing policies and procedures.

Women in Aviation Annual Convention - Orlando, FL. Dr. Phil Parker gave a joint presentation with Suzanne Massel, WAI Legal Advisor, titled, “Baby on Board: Aeromedical and Legal Issues for Pregnancy in the Aviation Environment.” Dr. Parker serves as the Aeromedical Advisor to WAI.

International Operators Conference (IOC) - New Orleans, LA. Dr. Snyder participated as a speaker for this annual event, addressing 600 pilots involved in international business aviation. He presented, “Boozin, Cruisin’ and Losin’” focusing on FAA DUI policies as part of a health panel including fatigue and cardiac health.



Discounted Aeromedical Benefit for NBAA Member Companies!

Through a partnership with NBAA, VFS now offers an annual 10% discount on aeromedical services to NBAA Member Companies in good standing who elect to enroll in the Complete Aeromedical Services Program (CASP).

The CASP provides complete coverage for aeromedical advice and FAA medical certification assistance. The program provides access to comprehensive tools and services to ensure your medical certificate is protected, including confidential e-mail and phone consultations with a VFS board certified Aerospace Medicine physician. The program includes FAA waiver advocacy and case preparation, for both initial reporting and renewal submissions. The program also provides dedicated tracking and follow-up notification for cases that have been submitted to the FAA, as well as reminder notices for future submissions. Interested Member Companies should contact our Chief Operating Officer, Catherine Cazorla, at 1-866-AEROMED or by sending an email to doctors@aviationmedicine.com.

PROTECT YOUR MEDICAL CERTIFICATE!

President's Corner



Elation About Depression! (...well, maybe just a smile)

Quay C. Snyder, MD, MSPH

On April 2, 2010, the FAA announced the Federal Air Surgeon's new policy on medical certification of pilots with depression treated with medication. The new policy will allow some pilots with depression which has been adequately treated with medications to hold any class of medical certificate with a Special Issuance Authorization (SIA). Our office has advocated for a change in this direction since 2002. We believe this is a very important step to enhance aviation safety and improve pilot health: two of the guiding principles for our company.

The Good News. Pilots who have taken one of four medications, Fluoxetine (Prozac); Sertraline (Zoloft); Citalopram (Celexa); or Escitalopram (Lexapro) for at least twelve months and are stable on the medication may apply for a SIA. The diagnoses eligible for SIA are limited to Major Depressive Disorder (mild or moderate) either with a single episode or recurrent, Dysthymic Disorder or Adjustment Disorder with depressed mood. They must be on a stable dose of a single medication that has ameliorated their symptoms without aeromedically significant side effects or exacerbation of symptoms over the previous twelve months.

The FAA policy also includes a period of time from 5 April 2010 to 30 September 2010 during which pilots who have previously failed to report on FAA form 8500-8 (medical application) their use of antidepressant medication or visits to physicians for depression have an opportunity for disclosing this information without risk of prosecution by the Department of Justice or administrative action by the FAA. After 30 September 2010, the opportunity is gone. The forgiveness period for failure to report diagnoses, use of medication or health care provider visits is limited to psychiatric conditions and not other diagnoses or treatment.

The Process

- In order to take advantage of the non enforcement period for failure to previously disclose, airmen must relinquish their medical certificates without guarantees they will subsequently receive a medical "waiver" or SIA.
- Requests for SIAs must include a status report from a treating psychiatrist (in addition to any other treating non-psychiatrist provider) specifying the diagnosis, length and course of treatment, dosage and type of medication used and whether or not any side effects are present.
- The pilot must also provide a personal statement describing his/her use of antidepressant medication and current mental status.
- Formal neurocognitive psychological testing including the raw data is required, to include an aviation-specific test (CogScreen AE) and several other more widely available tests.
- Pilots applying for First or Second Class certification who fly for a Part 121 or Part 135 carrier must have a letter from airline management (Chief pilot or designee) attesting to the pilot's competence, crew interaction and mood. These letters are required on a quarterly basis for the duration of the Special Issuance.
- An evaluation and written report is required from a HIMS trained FAA Aviation Medical Examiner who has reviewed all of the above reports and makes a recommendation for Special Issuance. Virtual Flight Surgeons conducts the HIMS training for AME's through an FAA funded contract with the Air Line Pilots Association. The Federal Air Surgeon's office maintains a listing of qualified HIMS trained AMEs.
- Additional testing may be deemed necessary by the Federal Air Surgeon.

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President's Corner (continued)

At this stage, these requests will go through the FAA Aeromedical Certification Division to the Federal Air Surgeon for review and determination for eligibility for Special Issuance. This process may take up to several months to be complete.

Who is Left Out?

- This policy does not apply to Air Traffic Control Specialists at this time. The Federal Air Surgeon anticipates a similar policy for ATCSs after internal coordination with the FAA and external coordination with NATCA at some point in the future.
- Pilots that have psychiatric diagnoses of :
 - Psychosis
 - Suicidal ideation
 - History of electro convulsive therapy (ECT)
 - Treatment with multiple antidepressant medications concurrently
 - History of multi-agent drug protocol use (prior use of other psychiatric drugs in conjunction with antidepressant medications)

Pilots that have falsified previous medical conditions for diagnoses, treatment and health care provider visits for non-depression related conditions.

The Unknowns. There are many nuances of this policy that have not been explored. Each case is considered individually. Over time, the policy may evolve, particularly as unique situations arise that have not been specifically addressed in this policy announcement. Until then, pilots considering requesting a SIA should consult carefully with their Aeromedical Advisors or AME before proceeding with this process. It is unclear how disability insurers will attempt to use this policy to reduce financial exposure, although inappropriate disallowances of claims are sure to occur. Pilot unions and aviation companies must work together to ensure pilots entitled to benefits receive what they are entitled to and are not forced to compromise aviation safety by being forced into inappropriate diagnoses or treatment.

Some pilots may find a six month treatment period of medication gives satisfactory resolution of their depressive symptoms continuing after tapering off the medication. After a three month period off the medication, even if it is not one of the four mentioned above, they could successfully apply for a Special Issuance Authorization in a shorter period of time than this protocol requires and without the additional administrative requirements.

Final Thoughts. The new policy is an important and historic positive change in FAA aeromedical certification. Many aeromedical scientific and professional organizations strongly support this announcement. It will improve aviation safety by allowing some pilots who suffer from this common disease to be able to be treated and return safely to the cockpit. It will improve pilot health. The hurdles for certification are high; the process is lengthy; the inclusion criteria are narrow. FAA resources for timely review are limited.

As a result, many pilots with depression or taking antidepressants for other reasons will not be able to take advantage of this policy, either because of medical reasons or because of financial penalties. Some will elect to fly with untreated depression and some will continue to conceal their diagnoses and treatment. Neither situation is ideal for aviation safety or for pilot health. If the policy proves successful in terms of aviation safety, we are hopeful that the FAA will expand the scope of eligible participants and streamline the aeromedical certification process. Until then, we applaud the FAA and the Federal Air Surgeon in making this change and will support all efforts to rapidly evaluate the safety and practicality of the policy with appropriate follow-up actions after new data are available.

Take care of your health first! - Dr. Quay Snyder

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Airmen & Controllers - "Ask the Doc"

Question: *I am a controller on sick leave for my 2nd bout of kidney stones. I was told by the Regional Flight Surgeon that I need to verify that I am stone-free before returning to safety sensitive duties. My understanding is I also need this to get a waiver for pilot medical certificate before I return to recreational flying. But I have also seen recent news reports on how lots of people get too much radiation from medical tests. Do I really need to get another CT scan in order to go back to work if I am not having any symptoms?*

In short, you do need to show evidence all stones are gone before returning to work or flying. However a CT scan is not the only way to do this. More on this later. First, your question raises a good point about how concerned pilots should be about their radiation exposure, both from medical tests and from their time spent at high altitudes.

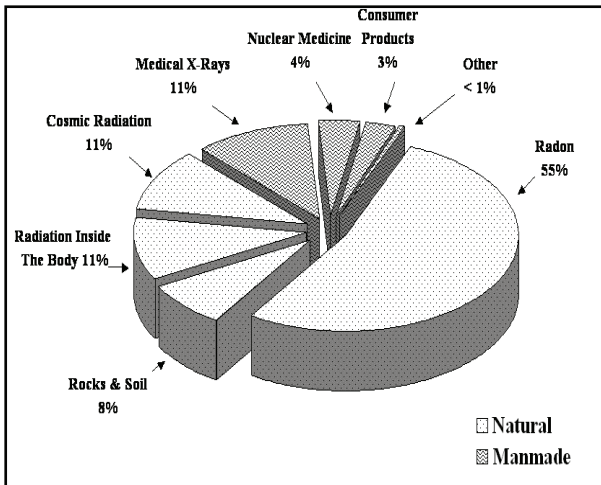


Figure 1 – Average Contribution of Each Source of Radiation Exposure

What is Radiation? We are all exposed to radiation. It comes from the sun and from space, from the rocks around us and from the minerals in our own bodies. Things like medical tests, radon in our homes or high altitude (such as flying in aircraft or living in the mountains) can increase the amount of radiation we receive.

Radiation is energetic particles or waves that can interact with matter. In this article we are concerned with ionizing radiation, which has enough energy to knock the electrons off the atoms it comes in contact with. Ionizing radiation is most easily measured in units of REM, or more often the smaller unit of millirem (mrem). The average American gets about 360 mrem per year from all sources. Living at altitude in Denver will increase this by about 24-40 mrem annually.

What Does Radiation Do to Me? Receiving a lot of radiation all at once (such as from an atomic bomb blast or a nuclear power plant accident) causes so much immediate damage that radiation sickness results. Changes in the white blood cells can be seen with 50,000 mrem, 300,000 mrem results in vomiting, hair loss and very serious illness, and over one million mrem is almost always fatal. Fortunately very few people will ever be exposed to this much radiation.

Of more concern to the rest of us is what happens as a result of the continuous low levels of radiation we receive daily. Typically this small amount is not a problem because our bodies are able to repair the damage as it occurs. However damage to the chromosomes inside the cells of our body is especially significant. The chromosomes contain instructions that tell our cells how to reproduce. If exactly the right combination of damage occurs and is not repaired before the cell divides, the cell may continue to multiply uncontrollably - it has then become cancerous. Cells that normally divide more rapidly, such as skin cells, are more prone to cancer because there is less time for repair. Genetic predisposition, toxins in the environment and certain infections are other contributors to one's cancer risk.

How Much Radiation is Dangerous? No amount of radiation is "safe," not even the small amounts we get naturally. Occurrence of cancer is random, but the chances increase with the cumulative exposure. Each mrem can be thought of as a lottery ticket for cancer – you can play for a long time without winning, but the more you receive the better your odds of eventually hitting the "jackpot." If we purchase more tickets by smoking, living at altitude or getting lots of medical tests then our risk goes up. The only thing we can do is keep our radiation exposure as low as reasonably achievable and hope for the best.

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Airmen & Controllers - "Ask the Doc" (continued)

The federal limit for radiation workers is 5000 mrem per year (or 1/10th that amount for pregnant women). Most people will receive much less than this. It is extremely difficult to estimate the risks associated with low levels of radiation exposure. There are simply too many other factors that confound the studies. Currently there is a lot of debate in the scientific community about whether it is correct to extrapolate the easily detected risks associated with large exposures down to the lower levels we are discussing. But for right now, the best estimate is that if 10,000 people were to receive an extra 1000 mrem over their lifetime, there would be 4 extra cancer deaths in that group. Table 1 shows the chance of death during one's lifetime from various causes.

Commonplace Risks	Lifetime Mortality Risk (%)
Tobacco	11.1
Poor Diet / Lack of Exercise	10.7
Infectious Agents	3.0
Accidents (all)	2.7
Firearms	1.5
Motor Vehicle Accidents	1.2
Falls	0.42
Drowning	0.09
Extra 1000 mrem radiation exposure	0.04

Table 1 – Lifetime Risk of Death (in %) from Various Sources

the needed information can be obtained in a way that involves less radiation exposure (MRI, ultrasound, plain X-ray instead of CT), then that test should be used. Frequent repeat testing should be done only rarely and for very good reason.

Radiation in the Aviation Environment. A flight from New York to Europe involves about 10 mrem of radiation exposure. This can vary greatly depending on the particular route, cruising altitude and solar flare activity at the time. Many studies have been done tracking the rates of cancer in pilots and flight attendants and comparing those to non-flyers. In general there are mildly increased risks of skin and breast cancer among crewmembers, but it is not clear these are due to radiation. Crewmembers are able to travel more easily to warmer climates, where more opportunities for sun exposure might account for the extra skin cancers. Also, similar increases in breast cancer were seen in all people doing shift-work that disrupted their circadian rhythms, not just flight crews.

In the case of your kidney stones, a simple abdominal X-ray would be satisfactory evidence of stone-free status, and since it involves much less radiation would usually be the better choice. CT scans and other nuclear procedures have revolutionized healthcare. Used appropriately they can provide lifesaving information at critical times. However they are not without their downside. Imaging tests, like any other medical procedure, should only be undertaken after a careful discussion with your doctor regarding the risks, benefits and alternative options.

Medical Sources of Radiation. The risks of medical radiation have received a lot of press coverage lately. It started with reports that hospitals in California were using miscalibrated machines to perform a very specialized brain scan. People were exposed to about 8-10 times the normal amount of radiation. Also, the Archives of Internal Medicine recently published a study estimating that radiation from all of the medical imaging done in 2007 will eventually result in 15,000 cancer deaths.

Numbers like these can sound scary, but it is important to remember that millions of people get X-rays and CT scans each year so the overall risk is low. The approximate amount of radiation for a typical scan, as estimated by the Medical Physics Society, is shown in Table 2. The imaging test with highest exposure is usually a CT scan of the abdomen and/or pelvis. MRI scans do not use any ionizing radiation. Clearly, it does not take many CT scans to approach or exceed the federal limits for radiation workers. From our discussion above, for every 10,000 people who get just one CT of the abdomen or pelvis, 4 might be expected to die of cancer as a result. While the benefits of scanning usually outweigh the small associated risk, it is important use discretion. If

Medical Procedure	Associated Radiation Dose (mrem)
Chest X-Ray	6
Abdominal X-Ray	70
Mammogram	13
Dental Bitewing X-ray	0.4
CT Head	200
CT Chest	800
CT Abdomen	1000
CT Pelvis	1000
Nuclear Cardiac Stress Test	890
Cardiac Catheterization	460 - 1580

Table 2 – Radiation Exposure Associated with Common Medical Tests



Spotlight: Your VFS Staff

To better acquaint you with the physician and administrative team that serves you, VFS will profile a staff member or special event each quarter. This quarter's spotlight is on our Accountant, Phillip Smith.



Phil is pictured with his wife, Tara.

Phillip Smith joined Virtual Flight Surgeons in February 2010. He hails from Kansas City, Kansas, although he has called Denver home for the last 10 years. He is a graduate of the University of Phoenix at Denver with a Bachelor's of Science Degree in Accounting. He has over ten years of accounting experience including over seven years in public accounting. Phil is also a U.S. Navy veteran, serving for over six years as a yeoman. He was stationed aboard the U.S.S. David R. Ray, a Spruance-class destroyer while home-ported in Long Beach, CA, and aboard the aircraft carrier U.S.S. Kitty Hawk while home-ported in San Diego, CA. He completed Western Pacific deployments to the Persian Gulf aboard each of these ships. He was also stationed at Newquay, Cornwall, England for two years in joint operations with the U.K.'s Royal Air Force and Royal Navy. When Phil is not at his desk "counting the beans," he can be found spending time with his wife, Tara, a native of Singapore, on the golf course or with his two nephews.

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 about this newsletter or our services, please contact our Director of Operations, Lawan Adkins at ladkins@aviationmedicine.com.

VFS Welcomes Our Newest Clients:

**Allegiant Air Pilot Advocacy Group (AAPAG)
Vulcan Materials Company**

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