



FLIGHT-WATCH



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TO FLY OR NOT TO FLY

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The use of medication while flying has always been a topic of concern not only to the aviator, but also to the treating physician. This subject includes treatment for both short and long-term illness and in some cases, preventative treatment.



Airbus A380

When considering the use of medication, the immediate focus is the potential of any side effects from the medicine that could compromise your ability to control the aircraft. This should be a significant concern to you, and, of course, the FAA, the airline, and the flying public.

An accurate rule of thumb and health to remember is that any medicine whether by physician's prescription or purchased over the counter ("OTC") can cause undesirable effects along with its intended beneficial effect. The frequency and severity of a drug or medicine's side effect varies with the type of medicine, its dosage, and with each person taking it. Some people can tolerate large doses of a substance over long periods of time, yet others will react violently to one small dose. Examples:

- Aspirin in the usual dosage is well-tolerated and effective. About 10-15% develop a mild gastric (stomach) irritation with indigestion. A fraction of a percent develops a gastric ulcer, which can result in a fatal hemorrhage.
- In the recent past, many international flight crews were required to take an anti-malarial drug as a preventive measure. In several thousand crew members, the medicine was a non-event. Fifteen crewmembers, however, died

over a three-year period from taking this "safe medication" to prevent malaria while on duty.

Some medicines are effective and well-tolerated when taken intermittently for years, but an allergy finally results, creating severe reactions like hives, wheezing, voice box closure, mental confusion, cardiac irregularities and sudden death.

Historically, the use of medication by on-duty pilots was prohibited. The main reasons were:

1. Most flying was usually under high-risk combat conditions and/or utilized high-performance aircraft.
2. The earlier generations of medicines had more frequent and severe side effects.
3. For many years, most airline and FAA physicians were trained in the military. Their strict military aviation medical philosophy was carried into the civilian arena.

Today, the basic personal guidelines are the same as they were in 1925. Let's review the current regulations and basics regarding the use of medication for short and long-term illness.

Short term maladies such as colds, flu, diarrhea, aches and pains of sprains and strains are usually self-medicated by the pilot with OTC drugs. Your best guideline to follow for this category is: ***If you are sick enough to take medicine – you shouldn't be flying!*** All OTC products for colds, cough, flu and sinus sickness have ingredients that cause sedation or overstimulation – slow reaction times and otherwise adversely affect your thinking process.



The World's Largest Aircraft, a Russian Antonov 225

Almost everyone has accrued sick leave days – give yourself a break, use a few and give yourself and others a break from your germs. The airline will function very well without you for a few days, or as a matter of fact, for a few years.

I have found over the years that flight crews being exposed to the germs deposited in terminal buildings, germs blowing through the A/C – coughing, snorting passengers, along with the insult of dry cockpit air and increased exposure to ultraviolet and radiation levels need to pay special attention to their immune system status. Helpful hints for enhancing your immune system:

- Low-fat, high-fiber diet.
- Stay well-hydrated (with clean water).
- Use vitamin/mineral supplements with extra Vitamin C three times daily.
- If you feel a cold coming – try an Echinacea/Goldenseal extract as directed for three to four days.
- Wash your hands frequently when on duty.

The treatment for **long-term** illness, use of medication and their compatibility with airman medical certification has changed dramatically in the last twenty years. The Federal Aviation Administra-

tion's medical policies have liberalized the equation of balance between the growth and safety of the industry. Gradual relaxation of the use of long-term medications and allowing certain disease categories to fly have been the result of this long-term experiment. The pilot unions have, of course, supported these new medical changes in the political arena as well.

The results of these changes are reflected in pilots with the following conditions after appropriate treatment and monitoring being allowed to continue their flying careers:

- Hypertension (high blood pressure)
- Myocardial infarction (heart attack)
- Heart valve replacement
- Thyroid and other hormonal diseases
- Loss of vision in one eye
- Loss of fingers, toes, etc.
- Certain cancer victims if considered "cured" for six months



The Cockpit of the Airbus A380

- Recovering alcoholics and drug addicts

Improved medical and surgical treatments/techniques, combined with industry utilization of training methods in the “crew concept” or Cockpit Resource Management, have facilitated/allowed these changes to safely occur. The operational safety compromise of a pilot incapacitation during a critical phase of flight has been effectively neutralized by training crews how to identify a subtle loss of function of the P.I.C. and how to handle the situation in a safe, standardized manner.

International travel, especially in the southern hemispheres or “third world” nations, presents a special set of guidelines. Health hazards due to prevalent poor hygiene in these locations may create the need for you to carry your own “medicine kit,” or to have a reliable medical resource in your layover city. The former would be prudent where medical facilities/resources are not available or reliable, which is often the case. Poor food handling techniques can and do create severe food poisoning with violent diarrhea and/or vomiting. Vomiting sometimes must be controlled with rectal suppositories and can be a “life saver” when readily available. Hepatitis, typhoid and an array of intestinal parasites are prevalent in these areas, and little *if any* health screening is done on food handlers. “Heath certificates” are bought, not earned. Eating only freshly-cooked hot meals – no salads or dairy products – and drinking from sealed, bottled water will prevent 95% of these cases

of “tourista.” Remember that ice cubes from unknown water sources will ruin the bottled water you just opened and poured over them. Discuss the contents and use of the required medications in a personal medical kit with your AME or personal physician who is knowledgeable about international travel and the health aspects concerned.

In summary: all medication for either short-term or long-term illness can compromise flight safety. If a need arises for you to take a prescription or OTC medicine, clarify with your treating physician or dentist that he knows you are a pilot and inquire about the potential side effects, as they could be related to your performance. Use sick leave for sickness – don’t contaminate your flying partners or compromise flight safety. It is very difficult to be objective about the often subtle, but significant, side effects on your brain function from many conditions and medications. If you don’t have one, find a readily-available aeromedical information source.

This month’s *Flightwatch* was written by guest author, C. Richard Harper, M.D. Dr. Harper is a Senior Aviation Medical Examiner. A graduate of Ohio State University, he is certified in Aerospace Medicine by the American Board of Preventative Medicine. He has a private practice of aviation medicine in Atlanta and is a Delta Airlines Flight Operations Consultant. He has served as a U.S. Naval Flight Surgeon and Chief Accident Investigation Branch, Office of Aviation Medicine, FAA.



Side View of the Russian Antonov 225

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