

AVIATION AviationHealth B U L L E T I N

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Sleep medications? "Knock yourself out".

It's fair to say that sleep has been under attack over the last few decades. Specifically, we have smart phones and other electronics that can reach out and touch us around the world 24/7, and ultra-long haul flights that can travel for nineteen hours continuously. Given that human beings have been reliant on the 24-hour circadian rhythm cycle since our existence and the hours of deep, quality sleep lessen as we get older, we do our best to maintain our "sleep bank" (the 1/3 of our week spent in bed; 49-56 hours/week).

While the Federal Aviation Administration (FAA) has long held that sleep aids posed a risk to aviation safety, they recognized that - after careful study and with specific guidelines – these medications could be used by aviators to enhance rest and improve focus in the cockpit. Excluding those medical conditions that compromise sleep such as obstructive sleep apnea, restless leg syndrome, on insomnia (a catch-all term with several possible causes), the FAA has approved several prescription sleep medications that Pilots can take.

- 1.) Use of these medications cannot exceed two (2) times over a seven (7) day period, and
- 2.) The Airman must honor the minimum down time, or "pill to push" period after taking these medications.

As of this writing, the FAA approves the following prescription medications for sleep.

<u>Trade Name</u>	<u>Generic Name</u>	Minimum down time after last dose <u>Before flight duties can</u> <u>resume</u>
Sonata	Zaleplon	6 hours
Rozerem	Ramelteon	12 hours
Ambien and Ambien CR	Zolpidem	24 hours
Lunesta	Eszopiclone	30 hours
Edluar	Zolpidem dissolves under the tongue	36 hours
Intermezzo	Zolpidem used for middle of the night awakening	36 hours
Zolpimist	Zolpidem as oral spray	48 hours
Restoril	Temazepam	72 hours
NOTE: The different formulations of Zolpidem have different half-lives, thus different wait times.		

As demonstrated, there is a wide variation on the down times with these sleep aides and this is based on the time needed to effectively clear the medication from the body. Further, the times listed are minimums. If the Pilot has lingering effects (fatigue, decreased focus) from these medications, they need to stay out of the cockpit until they feel ready to perform flight duties safely. Read FAR 67.113 (c) and FAR 61.53 for more information on this. (Read all the FARs to help you sleep).

With these approved sleep aids, as with other medications a Pilot is taking for the first time, a "ground test" should be followed whereby the Airman takes the medication and does not plan to fly for at least the minimum time periods indicated to make sure they do not have any adverse side-effects and/or hazardous interactions with other medications. If no issues arise than you can use the medications following the limited frequency and minimum down times.

A very important warning when using any of these aids: <u>NEVER CONSUME ALCOHOL OR OTHER SEDATING</u> <u>MEDICATIONS WITH THESE SLEEP MEDICATIONS</u>. Doing so has contributed to episodes of unusual behavior, sleep-walking, blackouts and respiratory and cardiac depression.

With regards to a Pilot reporting the use of any of these medications to the FAA at the time of their medical exam [Question 17(a), "Do You Currently Use Any Medication (Prescription or Nonprescription)?"] he/she should document that they are aware for the FAR requirements on the frequency of use and downtime to the sleep aid they have been prescribed, and are compliant with these requirements.

Questions are often presented about alternative sleep aids and over the counter medications. Understand that Melatonin is considered a food supplement by the FDA and the FAA, so there is no specific regulations on taking it to assist with sleep. However, if you choose to take Melatonin, I would advise the following:

- Get it from a reputable source such as GNC, Walmart, etc. rather than order online. Analysis of several products sold on the internet have found that they do not contain what you think you're are purchasing. Buyer beware.
- Take as directed. It is possible to overdose on supplements which can cause adverse effects. Do not play with increasing the dosage and frequency or what the manufacturer recommends.
- If you are on any prescription medications, consult your prescribing healthcare professional to make sure the Melatonin will not have adversely affect your prescriptions.

With over the counter sleep medications, understand that many of them (Tylenol PM, Sominex Unisom PM, Percogesic) contain diphenhydramine, the active component in Benadryl. Given the sedating properties of diphenhydramine, as well as the long time it takes to get out of your system, a Pilot cannot fly for sixty (60) hours after taking.

Although none of the medications or supplements identified above are tested for on the random DOT urine drug screen, the FAA has identified Pilots by other means who have been taking these sleep aids inappropriately or in violation of the FARs. Under FAR 61.53 it is the responsibility of the Airman so be physically and mentally fit when they report for duty. Should you have questions about what sleep aide would serve you best and not jeopardize your medical certification, you are encouraged to talk to your Aviation Medical Examiner, the Aeromedical team at Harvey W. Watt & Company (800-241-6103) or your ALPA Aeromedical Advisors.

Fly Safe!