

Need Some Zzzs? How Good Are The 'Z' Sleeping Pills?



By Josh Bloom — December 6, 2016



Original photo: How Stuff Works

Paradoxical musing:

Let's say that you are an insomniac. Perhaps, after a particularly bad night, the next morning you fall asleep driving to work and have an accident. Depending on where you live, [you could lose your license for having insomnia](#). ^[1]

So, you see your doctor and he prescribes a sleeping pill. Except when you try to pick it up, you can't get it because you don't have a driver's license, which is needed for identification whenever you pick up controlled substances. How are you going to get around that one? Beats me.

Anyhow, the purpose here is to inform, not complain. When it comes to prescription sleep aids, there are a number of choices. The need for a sleeping pill that is not a member of the benzodiazepine (Valium) class of sedative hypnotics **(1)** spurred a significant effort to find something different. It worked. In 1992, Sanofi-Aventis hit the jackpot when Ambien (generic name: zolpidem), received FDA approval. It remains the most popular prescription sleeping pill today. Other companies went after their own versions, but with only modest success. They all had "Z" names, so this class of sleep aids is often referred to as the Z's (see table).

Drug	Other Names*	Primary Use	Comments
Doxepin	Silenor, Sinequan	Antidepressant. Largely replaced by safer SSRIs. Sleep aid off label.	Tricyclic antidepressant, sold since 1950s. Multiple side effects. Does not help induce sleep, just maintain it.
Estazolam	ProSom	Benzodiazepine (Benzo)- anxiety and insomnia	Treats anxiety and insomnia. Been used for 40 years. (See Valium, below)
Lunesta	EsZopiclone ❖	Non-benzo hypnotic**	Modest activity. Metallic taste in mouth ✖
Rozerem	Ramelteon	Melatonin receptor agonist. Questionable utility. ⓘ	Advantage over melatonin: At least you know the dose you're getting. Not habit forming. Utility not established.
Belsomra	Suvorexant	First in a novel class of sleep aids called	Merck sunk a lot of time and money into this new class, which is called a dual orexin receptor antagonist. Consumer Reports sure doesn't like it. ⦿ Mixed reviews from patients.
Valium	Diazepam	Sedative hypnotic. Anticonvulsant.	Most used benzodiazepine ever. Rather safe in the absence of other drugs. NOT safe with alcohol. Tolerance, dependence common over time. Abuse potential. Dangerous to stop cold after prolonged use. Schedule IV-C, but still restricted. ↩
Ambien	Zolpidem	Sedative hypnotic	The gold standard of sleep medication, and the most popular. Very fast time of onset (15 minutes), and a short half-life (2-3) hours. Schedule IV, but still restricted.
Sonata	Zaleplon	Sedative hypnotic	Supposed to be an improvement over Ambien. It's not. Patients hate this too. ✖ Side effects include insomnia. Duh.

Properties of selected prescription sleep aids.

The above table is not comprehensive, nor is it an attempt to present voluminous data on each medicine. It is intended as a quantitative guide. Although far from a scientific analysis, the website Ask A Patient, which I have used, is quite useful, especially when a particular drug is reviewed by a large number of patients. For example, Ambien, the most popular prescription aid, is rated 3.9 on a scale of 5. This is quite good. On the other hand, the subsequent "Z drugs," Zaleplon (**3**) is rated 2.7—pretty bad (One of its side effects is insomnia. Nice.) If you also read the users' comments, *Ask A Patient* is even more useful, certainly more so than TV ads and 40-page package inserts.

You will note that the table above indicates multiple comments, which are shown below. In many cases, they are more useful than the chart itself.

* Partial list			
** Hypnotic is the FDA term for sleeping pills			
❖ When drug names begin with "Es," it is all but certain there was an older version drug, whose name was otherwise identical—minus the "Es."			
For example, zopiclone (Imovane) was the "original" Lunesta (Eszopiclone). Neither is very good.			
A racemate contains a 1:1 mixture two forms of an asymmetric drug—R and S. Each is called a single enantiomer.			
These are chemically identical, but the body sees them very differently. One is usually active, the other inactive.			
There is a theoretical advantage of marketing the single enantiomer. The FDA now usually requires this, when possible.			
In reality, drug companies have used "Es" drugs for purposes of patent extension, rather than improvement. This is rather scummy. (2)			
✖ I'm not kidding here. Tried it once. Mouth tasted like a rusty Buick for a whole day. And, worthless as a sleep aid. Down the toilet.			
ⓘ Patients HATE it.	http://www.askapatient.com/searchresults.asp?searchField=Rozerem		
🔗	http://www.consumerreports.org/cro/news/2015/07/skip-new-insomnia-drug-belsomra/index.htm		
■ People have taken as many as 200 10 mg Valium pills and lived.			
🔗 A subset of Schedule IV drugs are called IV-C. DEA: They have "a low potential for abuse relative to substances in Schedule III."			
Yet, at least in New York State, if you try to refill an Ambien prescription one nanosecond to early, a SWAT team will be outside the pharmacy.			
✖	http://www.askapatient.com/viewrating.asp?drug=20859&name=SONATA		

Assuming *this* didn't put you to sleep, or the presidential debates didn't help you relax, some of these work rather well. Or maybe too well, and you'll wake up find that you've become a Nepalese Sherpa who is 18,000 feet up from the base camp of Everest. And perhaps the thong underwear isn't working out all that well.

Notes:

- (1) Sedatives are for anxiety. Hypnotics are sleep aids. They are often interchangeable. Benzodiazepines are good sleep aids, however, people can be dependent upon them. This was the driving force behind discovery efforts to come up with an alternative class.
- (2) Most people who criticize drug companies have no idea what they're talking about. But, one legitimate criticism is the practice of getting a new patent by making a single enantiomer version of a formerly racemic drug. There is rarely much advantage, except for the company. Perhaps the most egregious example of this is the fact that the heartburn drug Nexium even existed. Nexium is nothing more than the single (active) enantiomer of Prilosec. The result: The dose of Nexium is half that of Prilosec, since the inactive component is gone. Also gone is the [\\$48 billion](#) [2] that people spent on the drug between 2006 and 2012, when the far less expensive (and equally effective Prilosec) would have done just fine.
- (3) Zaleplon was invented and developed by Wyeth, a bad sign on a good day. Although it is not often used (because it sucks), at least it didn't kill anyone (probably). Let's call this one a wash.

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[1] <http://www.ncsl.org/research/transportation/summaries-of-current-drowsy-driving-laws.aspx>

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