

# Consumer Reports BEST BUY DRUGS™

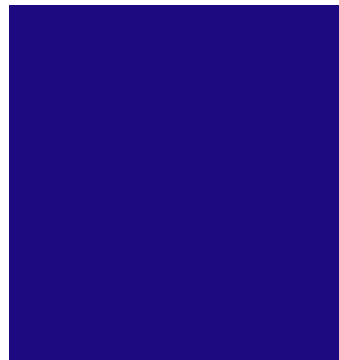
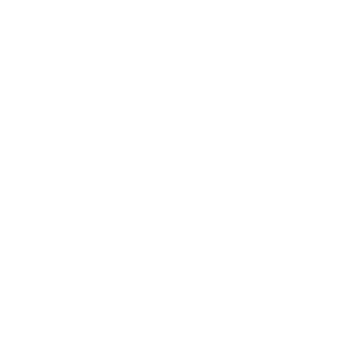
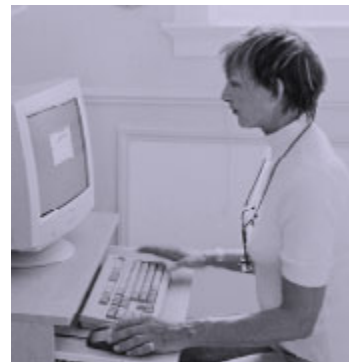
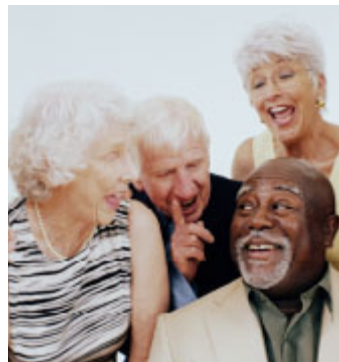
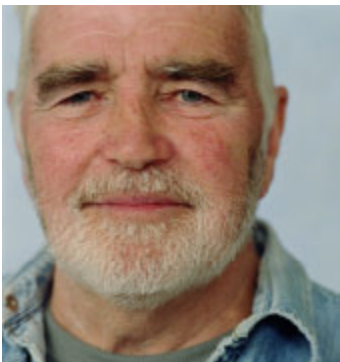
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Evaluating Newer Sedative Drugs Used to Treat:

## Insomnia

Comparing Effectiveness, Safety, and Price



# Our Recommendations

Four drugs used to treat insomnia – zolpidem (Ambien and Ambien CR), eszopiclone (Lunesta), ramelteon (Rozerem), and zaleplon (Sonata) – have been widely promoted to both doctors and consumers.

While effective, these medicines are not necessarily better than older, less expensive drugs for many people who need a sleep aid for a night or two. For example, non-prescription drugs containing antihistamines (Benadryl, Nytol, Tylenol PM, and Sominex) and older prescription sedatives called benzodiazepines may work just as well. Among the benzodiazepines approved as sleep aids are estazolam (ProSom), flurazepam (Dalmane), and temazepam (Restoril).

However, we recommend that both the older and newer sleeping pills be taken more judiciously and less often than appears to be the current pattern of use by millions of people in the U.S. There are two main reasons for that advice:

- People with only mild insomnia problems may be relying too heavily on pills and not trying to address their sleep problems with non-drug measures.
- All insomnia medicines have side effects, can cause dependency, and even worsen your sleeping problems when abused, misused, or taken too often. The possible side effects include daytime sleepiness, cognitive impairment, dizziness, unsteadiness, and rebound insomnia. Sleep-walking, sleep-driving, memory lapses, and hallucinations have also been reported.

People with persistent, chronic insomnia – three or more nights a week for months on end – do need treatment. We advise behavioral therapy that improves sleep habits, possibly combined with cautious use of sleeping pills.

For the average person seeking short-term help – for a few nights – we suggest trying an over-the-counter sleep aid first. If that doesn't work, our comparison of the newer drugs led us to choose zolpidem as a *Best Buy*. This is the less expensive generic version of the drug Ambien. Fifteen pills cost \$10 to \$35, depending on dose and where you buy it.

*This report was last updated in July 2008.*

# Welcome

This report compares the effectiveness, safety, and cost of a class of medicines called the newer sedative hypnotics – more commonly known as sleeping pills. They are used primarily to treat people with insomnia.

There is concern that the new sleeping pills are being over-prescribed and inappropriately prescribed. For several years they have been heavily advertised both to doctors and consumers, which may have led to excessive and overly-casual use. In addition, media stories and anecdotal accounts suggest that there is an emerging “gray market” for the newer sleeping pills, with people getting prescriptions and then selling individual pills.

At the same time, however, studies show that chronic insomnia is under-treated, with fewer than half of the people who need help getting it.

This report aims to help clarify who may benefit from the newer sleeping pills and who probably should not take them. The report is part of a Consumer Union and *Consumer Reports* project to help you find medicines that are safe and effective and give you the most value for your health care dollar. To learn more about the project, other drugs we’ve evaluated, or to get price updates, please visit [www.CRBBestBuyDrugs.org](http://www.CRBBestBuyDrugs.org).

Insomnia is quite common. About 10% to 15% of adults in the U.S. say they have *persistent* problems falling or staying asleep, and getting a good night’s rest. And a third to half of adults say they have at least one episode of insomnia per year.

Importantly, insomnia is not a disease. It is a set of symptoms (see box on page 4) that range quite widely in severity and duration. Doctors and sleep experts define three levels of insomnia: (1) *transient*, (2) *intermittent short-term*, and (3) *chronic*. Most of us have had *transient* insomnia at some point in our lives. It can be caused by any number of things – most commonly: stress, work worries, marital strife, jet lag, illness, temporary pain, sleeping in a new place and bed, or a disturbance in your normal sleep patterns. It may also be due to poor sleep habits or as doctors refer to it, “sleep hygiene.” (See table 1 on page 7.) But transient insomnia may also arise for no apparent reason. It can last up to a couple of weeks but usually passes in a few days.

*Intermittent short-term insomnia* is more bothersome. People with this experience bouts of insomnia from time to time. They are prone to it. The bouts may last from a few days to a few weeks. As with transient insomnia, the bouts may be triggered by life events or arise spontaneously. They can be exacerbated by poor sleep habits, such as going to bed at different times each night.

*Chronic insomnia* is even more serious. People with chronic insomnia have trouble getting to sleep at least three nights per week for at least a month and usually much longer.

Doctors break chronic insomnia down into two categories. The first is insomnia associated with other diseases. In fact, for the majority of people who have it, chronic insomnia is associated with other illnesses and conditions, most notably depression and/or anxiety. Indeed, insomnia is a key symptom of both, and recent studies indicate that chronic insomnia can be an early warning sign of a psychiatric problem. But, in addition, chronic insomnia can be associated with heart disease, arthritis, asthma, chronic pain, sleep apnea, Parkinson's disease, Alzheimer's disease, Attention Deficit Hyperactivity Disorder (ADHD), hyperthyroidism, and last but not least, menopause.

In many cases, proper treatment of these illnesses will help resolve the insomnia – without the need for separate treatment of the insomnia. But for millions of people, the sleeping problems may persist despite good treatment and must be managed separately.

A second form of chronic insomnia – affecting a minority of insomnia sufferers – is often called primary chronic insomnia or just primary insomnia. By definition, it is not related to or precipitated by another illness. The cause of this form of insomnia is not well understood. Some research suggests that people who have it have a tendency to be more “revved up” physiologically and mentally.

You should also know that many prescription and nonprescription drugs – such as steroids, certain pain relievers, caffeine pills, and decongestants – can also trigger insomnia.

### The Hallmark Symptoms of Insomnia

- Difficulty falling asleep – tossing and turning for an hour or more
- Waking up during the night and not being able to get back to sleep
- Waking up too early in the morning
- Feeling unrefreshed when waking up
- Daytime sleepiness, irritability, or anxiety

Insomnia can strike people of any age, including children. But older people are more likely to have trouble sleeping. This is mostly because they are more likely to have other illnesses (or just aches and pains) that disrupt sleep, or to be taking medicines that make getting a good night's rest difficult.

Doctors now know that treating insomnia is not just a matter of making your quality of life better. Insomnia can have serious health affects.

Sleeping difficulties have been linked to a higher risk of heart, lung, gastrointestinal disorders, and traffic accidents. Most recently, insomnia and sleeping too little have been associated with a higher risk of obesity. Insomnia has also been linked very clearly to poorer work performance and relationship problems.

In this report, we evaluate the four new sleeping pills currently available. They are:

Generic Name	Brand Name(s)	Available as a Generic Drug?
Zolpidem	Ambien	Yes
Zolpidem (sustained release)	Ambien CR	No
Eszopiclone	Lunesta	No
Ramelteon	Rozerem	No
Zaleplon	Sonata	No

These drugs are termed new or newer to distinguish them from an older group of sedatives and anti-anxiety drugs called the benzodiazepines. The larger class of benzodiazepines – which includes such drugs as alprazolam (Xanax), diazepam (Valium), and lorazepam (Ativan) – are used primarily to treat anxiety. But some benzodiazepines are approved by the FDA primarily to treat insomnia, because the companies who make the drugs sought that approval. This includes estazolam (ProSom), flurazepam (Dalmane), quazepam (Doral) temazepam (Restoril), and triazolam (Halcion).

The newer drugs we examine in this report have been shown to be generally as effective as the older insomnia-approved benzodiazepines. But there is ongoing debate about whether they are any more effective. Equally as important, there is ongoing debate about whether the newer drugs have fewer side effects than the older benzodiazepines. Several studies indicate that the older medicines cause more day-after sleepiness and grogginess, and are associated with a higher risk of dependency and what doctors call rebound insomnia (when you stop using the medicine and the insomnia returns and may even be worse for a few days). But, overall, there have been very few studies that have directly compared the newer drugs with the older ones and many researchers and doctors believe the case has never been clearly made that the newer drugs are all that much better or safer. This is consistent with the chemistry and biology of how the older and newer drugs act in the body, too, which is quite similar.

It's also important to note that the older benzodiazepines remain very useful in some circumstances – specifically in treating people who have an anxiety dis-

order that is also causing sleep problems. In this case, one of the older benzodiazepines may in fact be your doctor's first choice for you. The older drugs have the added advantage of being much less expensive since most are now available in generic form. (See Table 3 on page 13.)

Indeed, some doctors may even try you first on one of the older drugs (even if you don't have anxiety symptoms) just because they are much less expensive – and see how you respond. Some people tolerate these medicines well, have few of the side effects mentioned above, and can use them safely on an intermittent basis.

Other medicines and non-drug therapies are also used to treat insomnia. Among prescription drugs, one antidepressant in particular is very widely prescribed for insomnia (even in people who do not have depression). That drug is trazodone (Desyrel). It is an inexpensive generic that has been on the market for many years. It's rarely prescribed these days to treat depression because other drugs have eclipsed it. For short-term use, studies indicate it does help people who are depressed fall asleep and stay asleep. Unfortunately, there is very little evidence that it is effective in treating insomnia in people who have not been diagnosed with depression. In the one study to test trazodone against a placebo and a newer sleep drug (Ambien), trazodone came out only slightly better than placebo and not as helpful as Ambien.

Even so, trazodone is an option your doctor or therapist may consider. And if you have insomnia associated with depression, your doctor may prescribe both a newer type of antidepressant and trazodone. Such combo treatment is common. If you take both, we would caution you to monitor your level of sedation and daytime sleepiness. Also be aware that some doctors think it's not wise to combine trazodone with any other antidepressant drug.

Several nonprescription products or supplements are often used as sleep aids. They are antihistamines (such as diphenhydramine, Benadryl, Nytol, Tylenol PM, and Sominex), valerian (an herbal product), and melatonin (a dietary supplement). Over-the-counter antihistamines do indeed cause sedation and sleepiness, and some are marketed to treat transient insomnia. People often use them when minor illness (like a cold) makes sleep difficult, a form of transient insomnia. There's nothing at all wrong with that and indeed, it's a much less expensive way to treat your temporary insomnia than getting a prescription medicine. These drugs may also be helpful if you have travel-related insomnia.

Non-prescription antihistamines should not be used, however, over a long period for the management of chronic insomnia.

Some studies indicate that both valerian and melatonin are better than placebo at helping you fall asleep or stay asleep. However, examinations of the studies as a whole show that the effect of both products is pretty small. These products have not been compared to the benzodiazepines or the newer sleep aids. Also, be aware that it's often hard to judge the quality of the pills you buy and that safety data is lacking on the use of valerian and melatonin when taken regularly, or over a long period, as sleep aids.

**Table 1. Poor Sleep Habits and How to Correct Them**

Watching TV in bed	Don't. TV viewing is not conducive to calming down.
Computer work in bed	Don't work on a computer at all for at least an hour before going to bed.
Drinking alcoholic or caffeine drinks at night	Don't drink either for at least 3 hours before going to bed.
Taking medicines late at night	Many prescription and nonprescription medicines can delay or disrupt sleep. If you take any on a regular basis, check with your doctor about this.
Big meals late at night	Not ideal especially if you are prone to indigestion or heartburn. Allow at least 3 hours between dinner and going to bed.
Smoking at night	Don't smoke for at least 3 hours before going to bed. (Better yet: quit!)
Lack of exercise	Just do it! Regular exercise promotes healthy sleep.
Exercise late at night	A no-no. Allow at least 4 hours between exercise and going to bed. It revs up your metabolism, making falling asleep harder.
Busy or stressful activities late at night	Another no-no. Stop working or doing strenuous house work at least 2 hours before going to bed. The best preparation for a good night's rest is unwinding and relaxing.
Varying bedtimes	Going to sleep at widely varying bed times – 10:00 p.m. one night and 1:00 a.m. the next – disrupts optimal sleep. The best practice is to go to sleep at around the same time every night, even on the weekends.
Varying wake-up times	Likewise, the best practice is to wake up around the same time every day (with not more than an hour's difference on the weekends).
Spending too much time in bed, tossing and turning	Solving insomnia by spending too much time in bed is usually counter-productive; you'll become only more frustrated. Don't stay in bed if you are awake, tossing and turning. Get up and do something else until you are ready to go to sleep.
Late day napping	Naps can be wonderful but should not be taken after 3:00 pm. This can disrupt your ability to get to sleep at night.
Poor sleep environment	Noisy, too hot, uncomfortable bed, not dark enough, not the right covers or pillow – all these can prevent a good night's sleep. Solve these problems if you have them.

One non-drug treatment has proven quite effective in treating insomnia. It's called cognitive behavioral therapy or CBT. Behavioral therapy involves getting help from a therapist (one trained in CBT) to learn a new set of behaviors around sleep. For example, you may be prohibited from watching TV in bed, be directed to get up at the same time everyday, or have your actual time in bed restricted while you "relearn" to associate being in bed with sleep. You may also learn some relaxation techniques and mental tricks to help you get to sleep. And behavioral therapy usually also involves correcting your poor sleep habits. (See Table 1 on page 7.) Generally, CBT involves three to six one-hour sessions with a therapist (who could be a doctor or not), plus lots of direction for at-home activities.

Studies have found behavioral therapy effective (helping 70% to 80% of people with chronic insomnia), and several studies have found it *more effective* than sleeping pills alone. In other studies, a combination of the two has helped most. Behavioral therapy also has the advantage of yielding long-lasting benefits, something pills do not (since their affect is only limited to when they are being taken). Said another way, behavioral therapy – for some people anyway – may produce a "cure" while sleeping pills continue to treat the symptoms but don't produce a cure.

Thus, behavioral therapy is absolutely an alternative to sleeping pills for people with intermittent or chronic insomnia. If you see a primary care doctor or therapist for chronic insomnia and they prescribe pills without mentioning behavioral therapy as an option, you should mention it. If they don't know anything about behavioral therapy, we advise finding someone who does. Behavioral therapy costs more than pills in the short-term, but probably less in the long-run.

The rest of this report focuses primarily on the newer sedative drugs and how they compare with each other.

*This report was last updated in July 2008.*



## What Are the Newer Sleeping Pills and Who Needs Them?

Three of the four newer sleeping pills (Ambien, Lunesta, and Sonata) work in the same way, by affecting a chemical in the brain called gamma-aminobutyric acid, or GABA. Rozerem works differently, affecting the receptor in the brain for the hormone melatonin. Ambien CR contains the same medicine as Ambien but it stays active in the body for a longer period.

As mentioned, who should use these medicines and how often they should be used is currently the subject of significant debate. In the next section we compare the drugs to each other – evaluating their relative strengths and weaknesses if your doctor and you have decided one of these medicines is right for you. Here, our advice is for use of any of these medicines.

Our overall recommendation is this: *The newer sleep medicines should be taken more judiciously and less often than appears to be the current pattern of use by millions of people in the U.S.*

The main reasons for this advice are the following:

(1) Several of these medicines are relatively new and their long-term use has not been well studied. While the newer drugs may produce fewer side effects than older sleeping pills, they still have side effects and safety issues. These include daytime sleepiness, cognitive impairment (that can be hard to notice), dizziness, unsteadiness and loss of coordination, dependence, and rebound insomnia. Apparently rare but more ominous are sleep-walking (or sleep-driving), temporary amnesia or memory lapses, and hallucinations. While those side effects appear to be linked to taking excessive doses of the drugs, health authorities and researchers have not yet fully studied the potential for these problems (nor do they know how many people might be taking excessive doses). In addition, some reports of these problems have occurred in people taking recommended doses.

(2) When used only for a night or two, the risk of side effects appears to be minor, with the benefit of the drug outweighing any potential harm. But when you take one of the newer sleeping pills every night for a week or so, your risk of untoward events, such as a fall or accident, increases. This may be especially true for the elderly.

(3) Alternatives to these newer pills are available for many people. For example, people with very mild transient insomnia may do just as well to take a non-prescription antihistamine for a night or two. People with chronic insomnia should look to behavioral therapy, with less use of pills.

To clarify these points a bit further, here's our advice for some specific situations:

- If you have don't have insomnia but have heard about these newer drugs (perhaps from an ad on TV or in a magazine) and how great they are in case you have occasional trouble sleeping or while traveling through time zones, reevaluate your desire. Do you really need a drug? Talk with a physician about it.
- If you have just had a lousy night's sleep, or two, because of stress or travel, and you are worried about losing another night's sleep, a sleeping pill may help. You could try an over-the-counter antihistamine, an older benzodiazepine, or one of the newer pills. All three could help. Try improving your sleep hygiene, too, and see a doctor if your insomnia lasts more than five nights.
- If you have transient or situational insomnia – that is, because of travel, work or family stress, or a disturbing life event you have trouble sleeping for three nights in a row or three nights during one week – you may benefit from taking a sleeping pill on a short-term basis. Short-term means not more than seven days or so, and preferably fewer.
- If you have intermittent insomnia that disrupts your life for several days five or more times a year, you should consider behavioral therapy, especially if it's covered by your health insurance plan. You may also want to talk with your doctor about a prescription for sleeping pills to be used as needed on a short-term basis.
- If you have chronic insomnia, you should be treated with behavioral therapy and it should be covered by your insurance plan. You may also

want to talk your doctor about a prescription for a sleeping pill, to be used as needed on a short-term basis.

- If you are 55 or older and have chronic insomnia, you should be treated with behavioral therapy and avoid taking sleeping pills unless absolutely necessary on a short-term basis. Studies indicate that older people are at higher risk of all the side effects from these medicines.

- If you have been diagnosed with anxiety and have bad insomnia, talk with your doctor about trying a benzodiazepine first, before trying one of the newer and more expensive sleeping pills.

- If you have been diagnosed with depression and have bad insomnia, talk with your doctor about trazodone. But you may need another antidepressant and you and your doctor should weigh the pros and cons of taking two drugs at once.

### Some Do's and Don'ts on Sleeping Pills

Do	Don't
Take only the dose your doctor and/or pharmacist recommends.	Take extra doses to see if that would work better, or extra doses in the middle of the night if you awaken.
Tell your doctor about <i>all</i> other medicines you are taking. Many drugs can increase your risk of experiencing side effects from sleeping pills.	Mix sleeping pills with alcohol or "recreational" drugs. This can increase the risk of side effects, including sleep-walking, sleep-driving, memory lapses, and hallucinations.
Call your doctor if you think the drug is not helping.	Take sedating over-the-counter antihistamines and prescription sleeping pills at the same time. They have additive effects.
Tell your doctor if you have been depressed or anxious, or diagnosed previously with depression or anxiety, or are taking medicines now to treat these conditions.	Use sleeping pills to treat anxiety. They may sedate you but other medicines are better suited to this purpose.
Take a sleeping pill just as you are about to get into bed.	Take sleeping pills during the day or when you must be alert. For example, don't take one on a flight of less than 8 hours duration if when you land you will be renting a car or going to work.
Expect to feel very sleepy when you take a sleeping pill.	Expect a sleeping pill to put you right to sleep. It might, but more commonly it will take 15 to 30 or even 45 minutes.
Explore other ways to improve your sleeping habits.	Rely on sleeping pills for long even if your insomnia lasts a week or so.
Be cautious taking any sleeping pill if you are 55 or over.	Ignore signs of insomnia that could be reducing your quality of life just because you are 55 or older and think "I'm older and need less sleep."
Be explicit when telling your doctor about your sleeping problems and habits, and go online to learn more about sleeping pills.	Assume your doctor knows everything he or she should about the risks versus the benefits of sleeping pills.
Tell your doctor if you start taking a sleeping pill every night for longer than 7 to 10 days, or take one several times a week for weeks or months on end.	Count on sleeping pills as a long-term solution to chronic insomnia.

## Choosing a Sleeping Pill – Our *Best Buy* Picks

This section presumes you and your doctor have decided that you need a sleeping pill and it compares the four newer drugs.

All four of the newer drugs are effective in helping people fall asleep faster. In general, they will help you fall asleep in about 30 to 50 minutes. But that will vary widely, depending mostly on how severe your insomnia is.

The evidence on how well these medicines work to *keep* you asleep – what doctors call sleep duration – is less clear. Responses to the drugs vary, with some people having a substantial improvement in their sleep duration while others continue to wake up during the night.

The four drugs have different properties (mostly due to how fast they act and stay active chemically in the body). You and your doctor's choice may be based on these factors, matched against your insomnia symptoms, your overall health status, and your age.

But for the average person needing short-term help for insomnia, we have chosen only one of these drugs – zolpidem – as a *Best Buy*. Zolpidem is the generic version of brand-name Ambien. There is no longer any reason to take Ambien itself since the generic is much less expensive. Zolpidem is of course less expensive than the other newer sleeping pills as well. It's price still varies quite a bit. Our drug price database show it averages \$67 to \$70 for 30 pills, but a check of some online pharmacies indicating pricing at around \$15 to \$18 for 30 pills.

Our choice of zolpidem is driven by this price advantage but also by evidence showing that, by some measures, it's more effective than the others. (See Table 3 on page 12.) Thus, if you are getting a first-time prescription for one of the new sleeping pills, or if you have been taking one, we would urge you to talk to your doctor about generic zolpidem.

We would note that Ambien CR is not available as a lower-cost generic. So far, the evidence is weak that Ambien CR is any better than zolpidem. And for people whose main problem is getting to sleep, Ambien CR probably offers no advantage at all.

Table 3 presents some general comparisons of the four drugs, though notably the numbers come from different studies, making precise comparisons difficult. As you can see, zolpidem (Ambien) and Sonata tend to act more quickly in the body and thus appear more effective at helping you fall asleep. In one study that directly compared the two drugs in the same group of patients, Sonata was slightly better than zolpidem (by about 17 minutes on average) in bringing sleep about. Other studies, however, have consistently found zolpidem better than Sonata at producing longer duration sleep. Also people taking zolpidem have reported “better quality” sleep than those taking Sonata.

Lunesta acts a bit more slowly in the body and thus is slightly less effective at helping you get to sleep. While in theory – because of its slower action – Lunesta may be more likely to help you stay asleep, direct comparisons of Lunesta with the other drugs are lacking on this measure. One notable study found Lunesta effective (better than placebo) and safe for up to six months of use. The other drugs may well produce equal results if six-month studies of them were conducted. But, remember, *none* of these medicines – including Lunesta – ought to be used on a regular basis for that long.

Rozerem is a newer drug and there is less evidence available on its effectiveness. It acts differently in the body than the other drugs and appears, based on the available evidence, to be somewhat less effective than the others in helping people fall asleep. Again, Ambien CR is also a newer drug. While studies do show it increases sleep duration a bit more when compared to regular zolpidem (Ambien), the difference is not that great.

### Side Effects and Safety

As mentioned, all four of the drugs can cause side effects. The three most important are:

- Next-day drowsiness
- Rebound insomnia
- Dependency and abuse

On next-day drowsiness, the evidence is quite clear: Ambien CR and Lunesta both cause more next-day

**Table 2. Effectiveness and Differences – The Newer Sedative Drugs**

Drug and Year it Went on Market	Helps You Fall Asleep?	Average Time to Fall Asleep <sup>1</sup>	Helps You Stay Asleep?	Percent With Next-Day Drowsiness <sup>1</sup>	Risk of Rebound Insomnia?	Risk of Dependency
Zolpidem (Ambien) (1992)	Yes	33 to 46 minutes	Yes	2%-3%	Yes	Yes
Ambien CR (2005)	Yes	NA	Yes	15%	Yes	Yes
Lunesta (2004)	Yes	50 minutes	Yes	8% to 10%	Yes	Yes
Rozerem (2005)	Yes	75 minutes	No information	5%	No	No
Sonata (1999)	Yes	36 to 55 minutes	Evidence weaker than for zolpidem and Lunesta	5%-6%	No	Yes

1. As assessed in one major study or, if range given, several studies. Figures are not meant to imply that drugs were necessarily compared to each other in a study with consistent design

drowsiness than the other drugs. In the few comparison studies to date, fewer people who took zolpidem experienced this side effect.

Rebound insomnia occurred in some people taking zolpidem, Ambien CR, and Lunesta, but not Sonata or Rozerem. But the problem is usually short-term, disappearing by the second or third night after the drug was stopped.

All four of the newer medicines are less likely to cause dependence and abuse problems than older insomnia medicines (the benzodiazepines) – and that may be their biggest advantage over the older drugs. However, there have been reports of abuse and dependence with zolpidem. Most have occurred in people who had problems with drug or alcohol dependence in the past. So far, there have been fewer similar reports with the other newer sleep drugs. But the reason for that probably has more to do with Ambien’s length of time on the market and use by millions more people than the other drugs. Ambien first became available in 1992 while the next new sleep drug (Sonata) didn’t come along until 1999.

Notably, because it works differently, Rozerem is not considered to have the potential for abuse and dependence that the other new insomnia medicines have. That could be an advantage for use in treating

people who have dependency problems or a history of drug abuse.



All four drugs cause minor side effects at about the same rate. None offers an advantage over the others in this regard. The most common are headache and dizziness. But only about 2% to 6% of people stop using the drugs because of these problems.

Sleepwalking, amnesia, and hallucinations appear to be very rare when any of these medicines are taken as they should be. However, the reports of these problems should be a caution that excessive use and especially excessive doses in the middle of the night can raise the risk of serious problems. Combining sleeping pills with alcohol, even just a drink or two, is not a good idea and raises the risk of problems.

### Age, Race, and Gender Differences

The new insomnia medicines are as effective in older adults as they are in younger people. But they cause more side effects in older people. For that reason, they should be taken in lower doses by older people. In general, the recommended starting dose of all the drugs (except Rozerem) in older adults is half the usual dose. Also, studies have shown that all sleeping drugs (not just the new ones) increase the risk of hip fracture in older people, because they lead to falls.

**Table 3. Costs of Newer Insomnia Drugs and Selected Older Ones**

Generic Name	Brand Name	Is a Generic Drug?	Average Cost for 7 Doses <sup>1</sup>	Average Cost for 15 Doses <sup>1</sup>
<b>Newer Sedatives</b>				
Zolpidem 10mg tablet	Ambien	No	\$40	\$86
Zolpidem 5mg tablet	Ambien	No	\$41	\$88
 Zolpidem 10mg tablet	Generic	Yes	\$15	\$33
 Zolpidem 5mg tablet	Generic	Yes	\$16	\$35
Zolpidem 6.25mg sustained release	Ambien CR	No	\$37	\$78
Zolpidem 12.5mg sustained release	Ambien CR	No	\$36	\$77
Eszopiclone 1mg tablet	Lunesta	No	\$45	\$96
Eszopiclone 2mg tablet	Lunesta	No	\$44	\$93
Eszopiclone 3mg tablet	Lunesta	No	\$44	\$94
Ramelteon 8mg tablet	Rozerem	No	\$34	\$72
Zaleplon 5mg capsule	Sonata	No	\$36	\$78
Zaleplon 10mg capsule	Sonata	No	\$35	\$76
<b>Selected Antidepressant</b>				
Trazodone 50mg	Desyrel	No	\$15	\$32
Trazodone 100mg	Desyrel	No	\$30	\$63
Trazodone 150mg	Desyrel	No	\$25	\$54
Trazodone 50mg	Generic	Yes	\$3	\$5
Trazodone 100mg	Generic	Yes	\$3	\$5
Trazodone 150mg	Generic	Yes	\$5	\$12
<b>Selected Benzodiazepines<sup>2</sup></b>				
Estazolam 1mg tablet	ProSom	No	\$13	\$27
Estazolam 2mg tablet	ProSom	No	\$15	\$32
Estazolam 1mg tablet	Generic	Yes	\$6	\$13
Estazolam 2mg tablet	Generic	Yes	\$7	\$15
Flurazepam 15mg capsule	Dalmane	No	\$13	\$29

**Table 3. Costs of Newer Insomnia Drugs and Selected Older Ones**

Generic Name	Brand Name	Is a Generic Drug?	Average Cost for 7 Doses <sup>1</sup>	Average Cost for 15 Doses <sup>1</sup>
Flurazepam 30mg capsule	Dalmane	No	\$18	\$39
Flurazepam 15mg capsule	Generic	Yes	\$3	\$6
Flurazepam 30mg capsule	Generic	Yes	\$3	\$7
Lorazepam 0.5 mg tablet	Ativan	No	\$13	\$28
Lorazepam 1mg tablet	Ativan	No	\$17	\$35
Lorazepam 2mg tablet	Ativan	No	\$25	\$53
Lorazepam 0.5mg tablet	Generic	Yes	\$3	\$7
Lorazepam 1mg tablet	Generic	Yes	\$4	\$8
Lorazepam 2mg tablet	Generic	Yes	\$5	\$10
Quazepam 7.5mg tablet	Doral	No	\$31	\$67
Quazepam 15mg tablet	Doral	No	\$34	\$73
Temazepam 7.5mg capsule	Restoril	No	\$51	\$109
Temazepam 15mg capsule	Restoril	No	\$55	\$117
Temazepam 30mg capsule	Restoril	No	\$57	\$123
Temazepam 7.5mg capsule	Generic	Yes	\$6	\$12
Temazepam 15mg capsule	Generic	Yes	\$3	\$6
Temazepam 30mg capsule	Generic	Yes	\$4	\$8
Triazolam 0.125mg tablet	Halcion	No	\$13	\$27
Triazolam 0.25mg tablet	Halcion	No	\$15	\$33
Triazolam 0.125mg tablet	Generic	Yes	\$5	\$11
Triazolam 0.25mg tablet	Generic	Yes	\$4	\$10

1. Recommended use is one pill at bedtime. The prices given are based on per pill costs. Prices reflect nationwide retail average for January 2008, rounded to the nearest dollar. Prices are derived by *Consumer Reports Best Buy Drugs* from data provided by Wolters Kluwer Health, Pharmaceutical Audit Suite. Wolters Kuwer is not involved in our analysis or recommendations.
2. Those approved by the FDA for treating insomnia. Other benzodiazepines that act in the same way are also available but their makers have not sought approval for use in the treatment of insomnia. These other benzodiazepines may be prescribed off-label for that purpose by some doctors.

## Talking With Your Doctor

It's important for you to know that the information we present here is not meant to substitute for a doctor's judgment. But we hope it will help your doctor and you arrive at a decision about whether you need an insomnia medicine and, if so, which one is best for you.

Bear in mind that many people are reluctant to discuss the cost of medicines with their doctors and that studies show doctors do not routinely take price into account when prescribing medicines. Unless you bring it up, your doctors may assume that cost is not a factor for you.

Many people (including many physicians) also believe that newer drugs are always or almost always better. While that's a natural assumption to make, the fact is that it's not true. Studies consistently show that many older medicines are as good as, and in some cases better than, newer medicines. Think of them as "tried and true," particularly when it comes to their safety record. Newer drugs have not yet met the test of time, and unexpected problems can and do crop up once they hit the market.

Of course, some newer prescription drugs are indeed more effective and safer. Talk with your doctor about the pluses and minuses of newer versus older medicines, including generic drugs.

Prescription medicines go "generic" when a company's patents on a drug lapse, usually after about 12 to 15 years. At that point, other companies can make and sell the drug.

Generics are almost always much less expensive than newer brand name medicines, but they are not lesser quality drugs. Indeed, most generics remain useful medicines even many years after first being marketed. That is why today about half of all prescriptions in the U.S. are for generics.

Another important issue to talk with your doctor about is keeping a record of the drugs you are taking. There are several reasons for this:

- First, if you see several doctors, they may not always tell each other which drugs have been prescribed for you.
- Second, it is very common for doctors today to prescribe several medicines for you before finding one that works well or best, mostly because people vary in their response to prescription drugs.
- Third, more and more people today take several prescription medications, nonprescription drugs and supplements all at the same time. Many of these interact in ways that can be very dangerous.
- And fourth, the names of prescription drugs—both generic and brand—are often hard to pronounce and remember.

For all these reasons, it's important to keep a list of the drugs you are taking, both prescription and nonprescription and including dietary supplements.

Always be sure, too, that you understand the dose of the medicine being prescribed for you and how many pills you are expected to take each day. Your doctor should tell you this information. When you fill a prescription at the pharmacy, or if you get it by mail, you may want to check to see that the dose and the number of pills per day on the pill bottle match the amounts that your doctor told you.

## How We Picked the *Best Buy* Drugs

Our evaluation is primarily based on an independent scientific review of the evidence on the effectiveness, safety, and adverse effects of the newer sleeping pills. A team of physicians and researchers at Oregon Health & Science University Evidence-based Practice Center conducted the analysis as part of the Drug Effectiveness Review Project, or DERP. DERP is a first-of-its-kind 14-state initiative to evaluate the comparative effectiveness and safety of hundreds of prescription drugs.

A synopsis of DERP's analysis of the insomnia drugs forms the basis for this report. A consultant to *Consumer Reports Best Buy Drugs* is also a member of the Oregon-based research team, which has no financial interest in any pharmaceutical company or product.

The full DERP review of the insomnia drugs is available at <http://www.ohsu.edu/drugeffectiveness/reports/final.cfm>. (This is a long and technical document written for physicians.)

Our analysis also relied on the results of an examination of treatments for chronic insomnia by a group of medical experts convened in June 2005 by the National Institutes of Health. In addition, we

consulted recent reviews and articles published in the medical literature and material available online from reputable sources.

The drug costs we cite were obtained from a health-care information company which tracks the sales of prescription drugs in the U.S. Prices for a drug can vary quite widely, even within a single city or town. All the prices in this report are national averages based on sales of prescription drugs in retail outlets. They reflect the cash price paid for a month's supply of each drug in January 2008.

Consumers Union and *Consumer Reports* selected the *Best Buy* using the following criteria. The drug had to:

- Be approved by the FDA for treating insomnia.
- Be as effective as other insomnia medicines.
- Have a safety record equal to or better than other insomnia medicines.
- Have an average price for a 7 and 15 day supply that was not higher than the other insomnia medicines.

The *Consumers Reports Best Buy Drugs* methodology is described in more detail in the Methods section at [www.CRBestBuyDrugs.org](http://www.CRBestBuyDrugs.org).

## About Us

Consumers Union, publisher of *Consumer Reports*<sup>™</sup> magazine, is an independent and non-profit organization whose mission since 1936 has been to provide consumers with unbiased information on goods and services and to create a fair marketplace. Consumers Union's main Web site is [www.consumersunion.org](http://www.consumersunion.org). The magazine's Web site is [www.consumerreports.org](http://www.consumerreports.org). Our new health Web site is [www.consumerreportshealth.org](http://www.consumerreportshealth.org).

*Consumer Reports Best Buy Drugs*<sup>™</sup> is a public education project administered by Consumers Union. Grant funds support the project. Funds from the Engelberg Foundation, a private philanthropy, and the National Library of Medicine supported the creation and launch of *Best Buy Drugs*. Today, these materials are made possible by a grant from the state Attorney General Consumer and Prescriber Education Grant Program which is funded by the multi-state settlement of consumer fraud claims regarding the marketing of the prescription drug Neurontin.

## Sharing this Report

This report should not be viewed as a substitute for a consultation with a medical or health professional. The information is meant to enhance communication with your doctor, not replace it. Use of our drug reports is also at your own risk. Consumers Union can not be liable for any loss, injury, or other damages related to your use of this report.

You should not make any changes in your medicines without first consulting a physician.

We followed a rigorous editorial process to ensure that the information in this report and on the *Consumer Reports Best Buy Drugs* Web site is accurate and describes generally accepted clinical practices. If we find, or are alerted to, an error, we will correct this as quickly as possible. However, *Consumer Reports* and its authors, editors, publishers, licensors and any suppliers cannot be responsible for medical errors or omissions, or any consequences from the use of the information on this site.

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