## DRUGS THAT CAUSE SLEEPLESSNESS

Alpha-blockers	Beta-blockers	Corticosteroids	SSRI antidepressants
alfuzosin (Uroxatral), doxazosin (Cardura), prazosin (Minipress), silodosin (Rapaflo), terazosin (Hytrin) and tamsulosin (Flomax)	atenolol (Tenormin), carvedilol (Coreg), metoprolol (Lopressor, Toprol), propranolol (Inderal), sotalol (Betapace), timolol (Timoptic) and some other drugs whose chemical names end with "-olol."	cortisone, methylprednisolone (Medrol), prednisone (sold under many brand names, such as Deltasone and Sterapred) and triamcinolone	citalopram (Celexa), escitalopram (Lexapro), fluoxetine (Prozac, Sarafem), fluvoxamine (Luvox), paroxetine (Paxil, Pexeva) and sertraline (Zoloft)
How they can cause insomnia: Alpha-blockers are linked to decreased REM (rapid eye movement) sleep — the stage of sleep when people dream — and daytime sedation or sleepiness. The proportion of REM sleep drops markedly in old age, and people deprived of REM sleep can experience memory problems.	blockers have long been associated with sleep disturbances, including awakenings at night and nightmares. They are thought to do this by inhibiting the nighttime secretion of melatonin, a hormone involved in regulating both sleep and the body's circadian clock. Low levels of melatonin have sometimes been observed in chronic insomnia.	How they can cause insomnia: People often ask why a drug that reduces inflammation would keep them awake. The answer lies in the adrenal glands, which are responsible for regulating the body's fightor-flight response. Too much stress can keep the body awake and the mind stimulated by exhausting the adrenal glands; corticosteroids can do the same thing, wreaking havoc on all the systems that allow you to relax and sleep, causing insomnia and unpleasant dreams.	How they can cause insomnia: Just as it isn't known exactly how SSRIs work, it isn't known exactly how these drugs interfere with sleep. Studies have shown, however, that SSRIs cause agitation, insomnia, mild tremor and impulsivity in 10 percent to 20 percent of the people who take them.
Alternatives: For older people, benzothiazepine calcium channel blockers, another form of blood pressure medication, are often safer and more effective than alphablockers. If the alphablocker has been prescribed to treat BPH, talk with your doctor about the possibility of switching to a 5-alpha-reductase inhibitor such as dutasteride (Avodart) or finasteride (Proscar), which are safer and generally better tolerated by older patients.		Alternatives: Ask your doctor or pharmacist whether you can take your medication in a single dose early in the day.	Alternatives: If you are experiencing anxiety or insomnia while on an SSRI (or any other antidepressant, for that matter), it's important to tell your prescribing doctor right away. Sleeplessness — in itself a marker of depression — can make you even more depressed. Using morning dosing can often help this side effect.

## **DRUGS THAT CAUSE SLEEPLESSNESS**

ACE inhibitors	Angiotensin II-receptor blockers (ARBs)	Cholinesterase inhibitors	Second-generation (nonsedating) H1 antagonists
benazepril (Lotensin), captopril (Capoten), enalapril (Vasotec), fosinopril (Monopril), lisinopril (Prinivil, Zestril), moexipril (Univasc), perindopril (Aceon), quinapril (Accupril), ramipril (Altace) and trandolapril (Mavik).	candesartan (Atacand), irbesartan (Avapro), losartan (Cozaar), telmisartan (Micardis) and valsartan (Diovan)	donepezil (Aricept), galantamine (Razadyne) and rivastigmine (Exelon). The main side effects of these drugs include diarrhea, nausea and sleep disturbances.	azelastine (Astelin) nasal spray, cetirizine (Zyrtec), desloratadine (Clarinex), fexofenadine (Allegra), levocetirizine (Xyzal) and loratadine (Claritin).
How they can cause insomnia: ACE inhibitors boost the body's levels of bradykinin, a peptide that enlarges blood vessels. Bradykinin is thought to be the cause of the hacking, dry cough that up to a third of all patients who take an ACE inhibitor develop. This chronic, round-the-clock cough can be severe enough to keep anyone awake. ACE inhibitors can also cause potassium to build up in the body (another type of electrolyte imbalance) and lead to diarrhea, as well as leg cramps and achy joints, bones and muscles — all of which can disturb normal sleep.	How they can cause insomnia: Like ACE inhibitors, ARBs frequently lead to potassium overload in the body, causing diarrhea as well as leg cramps and achy joints, bones and muscles — all of which can disturb normal sleep.	How they can cause insomnia: These drugs are thought to work by inhibiting the enzyme in the body that breaks down acetylcholine (a neurotransmitter that's important for alertness, memory, thought and judgment) and thus boosting the amount available to brain cells. This, in theory, slows the patient's loss of memory and helps him or her perform daily activities with fewer problems. But blocking the breakdown of acetylcholine — which is everywhere in the body, not just in the brain — can interfere with all kinds of involuntary body processes and movements, including those related to sleep. In addition to insomnia and abnormal dreams, the identified side effects of cholinesterase inhibitors include serious changes in heart rhythm, diarrhea, nausea and vomiting as well as leg cramps and muscle spasms all of which can interfere with normal sleep patterns.	How they can cause insomnia: In varying degrees, all H1 antagonists block acetylcholine, a nervous system neurotransmitter, and thus can cause anxiety and insomnia.
Alternatives: If you're taking an ACE	Alternatives: As with ACE inhibitors, I'd	Alternatives: It's important to remember that	Alternatives: Since these second-
	recommend you consult with your health care provider about the advisability of switching to a benzothiazepine calcium channel blocker,	cholinesterase inhibitors cannot reverse Alzheimer's disease or slow the underlying destruction of nerve cells. And because the Alzheimer's-afflicted brain produces less acetycholine as the disease progresses, all medications in this class eventually lose whatever effectiveness they may be presumed to have.	generation antihistamines are typically active in the body for around eight hours, you may find that taking your daily dose in the morning may be all that's needed to resolve any sleep-related problems it may

renin-angiotensin systems, have much higher incidences of adverse

side effects.

## **DRUGS THAT CAUSE SLEEPLESSNESS**

Glucosamine and chondroitin	Statins	
Various Product Names	atorvastatin (Lipitor), lovastatin (Mevacor), rosuvastatin (Crestor) and simvastatin (Zocor).	
How they can cause insomnia: Researchers aren't sure exactly how glucosamine and chondroitin work, but studies identify a range of gastrointestinal side effects, including nausea and diarrhea, as well as headaches and insomnia.	How they can cause insomnia: The most common side effect of all types of statins is muscle pain, which can keep people who take them awake at night and unable to rest. In the worst cases, the pain caused by statins can be immobilizing.	
Alternatives: While many people take glucosamine and chondroitin, alone or together, for osteoarthritis, they may not help at all. A recent analysis of many studies of these supplements failed to find evidence that they slow joint destruction or relieve pain.	Alternatives: You also might try lowering your blood levels of homocysteine — which is linked to high cholesterol — by taking a combination of sublingual (under-the-tongue) vitamin B12 (1,000 mcg daily), folic acid (800 mcg daily) and vitamin B6 (200 mg daily).	