Treatment Options for Insomnia

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Patient information: See related handout on insomnia (https://www.aafp.org/afp/2007/0815/p527.html), written by the authors of this article.

The frequency of sleep disruption and the degree to which insomnia significantly affects daytime function determine the need for evaluation and treatment. Physicians may initiate treatment of insomnia at an initial visit; for patients with a clear acute stressor such as grief, no further evaluation may be indicated. However, if insomnia is severe or long-lasting, a thorough evaluation to uncover coexisting medical, neurologic, or psychiatric illness is warranted. Treatment should begin with nonpharmacologic therapy, addressing sleep hygiene issues and exercise. There is good evidence supporting the effectiveness of cognitive behavior therapy. Exercise improves sleep as effectively as benzodiazepines in some studies and, given its other health benefits, is recommended for patients with insomnia. Hypnotics generally should be prescribed for short periods only, with the frequency and duration of use customized to each patient's circumstances. Routine use of over-the-counter drugs containing antihistamines should be discouraged. Alcohol has the potential for abuse and should not be used as a sleep aid. Opiates are valuable in pain-associated insomnia. Benzodiazepines are most useful for short-term treatment; however, long-term use may lead to adverse effects and withdrawal phenomena. The better safety profile of the newer-generation non-benzodiazepines (i.e., zolpidem, zaleplon, eszopiclone, and ramelteon) makes them better first-line choices for long-term treatment of chronic insomnia.

The American Academy of Sleep Medicine defines insomnia as unsatisfactory sleep that impacts daytime functioning.[1] More than one third of adults report some degree of insomnia within any given year, and 2 to 6 percent use medications to aid sleep.[2] Insomnia is associated with increased morbidity and mortality caused by cardiovascular disease and psychiatric disorders and has other major public health and social consequences, such as accidents and absenteeism.[3] Risk factors for chronic insomnia include increasing age, female sex, psychiatric illness, medical comorbidities, impaired social relationships, lower socioeconomic status, separation from a spouse or partner, and unemployment.[4]

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SORT: KEY RECOMMENDATIONS FOR PRACTICE

CLINICAL RECOMMENDATION	*EVIDENCE RATING*	*REFERENCES*
Exercise, cognitive behavior therapy, and relaxation therapy are recommended as effective, nonpharmacologic treatments for chronic insomnia.	A	4, 7, 12, 16
Melatonin is effective in patients with circadian rhythm sleep disorders and is safe when used in the short term.	B	20
Benzodiazepines are effective for treating chronic insomnia but have significant adverse effects and the risk of dependency.	B	4, 22, 36
Nonbenzodiazepines (e.g., eszopiclone [Lunesta], zaleplon [Sonata], zolpidem [Ambien]) are effective treatments for chronic insomnia and, based on indirect comparisons, appear to have fewer adverse effects than benzodiazepines.	B	4

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, see page 483 or https://www.aafp.org/afpsort.xml (https://www.aafp.org/afpsort.xml).

Evaluation

Criteria for the diagnosis of insomnia are provided in *Table 1*.[5] Although there are several classification systems, it is practical to divide insomnia into two categories by duration: acute (i.e., less than 30 days) and chronic (i.e., 30 days or longer). If insomnia is associated with another condition, it is designated as comorbid insomnia (*Table 2*).[6–8] Only about 15 to 20 percent of patients with chronic insomnia have no other associated diagnosis (primary insomnia).[9]

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Table 1

Criteria for the Diagnosis of Insomnia

At least one of the following complaints:

Difficulty initiating and/or maintaining sleep; sleep that is poor in quality; trouble sleeping despite adequate opportunity and circumstances for sleep; waking up too early

At least one of the following types of daytime impairment related to sleep difficulty:

Attention, concentration, or memory impairment; concerns or worries about sleep; daytime sleepiness; errors or accidents at work or while driving; fatigue or malaise; gastrointestinal symptoms; lack of motivation; mood disturbance or irritability; social or vocational dysfunction or poor school performance; tension headaches

*Information from reference **5**.*

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Table 2

Types and Causes of Insomnia

Selected causes of acute insomnia (< 30 days)*

Situational stress (e.g., occupational, interpersonal, financial, academic, medical)

Environmental stressors (e.g., noise)

Death or illness of a loved one

Selected causes of chronic insomnia (≥ 30 days)

Medical disorders

Arthropathies, cancer, chronic pain, congestive heart failure, COPD, end-stage renal disease, gastroesophageal reflux disease, HIV/AIDS, hyperthyroidism, nocturia caused by prostatic hypertrophy, stroke

Medications

Anticholinergic agents; antidepressants (SSRIs, bupropion [Wellbutrin]), MAOIs; antiepileptics (lamotrigine [Lamictal], phenytoin [Dilantin]); antineoplastics; beta blockers; bronchodilators (beta agonists); CNS stimulants (methylphenidate [Ritalin], dextroamphetamine [Dextrostat], nicotine [Nicotrol]); interferon alfa; miscellaneous (diuretics, atorvastatin [Lipitor], levodopa, quinidine); steroids, oral contraceptives, progesterone, thyroid hormone

Primary sleep disorder

Periodic limb movement disorder, restless legs syndrome, sleep apnea

Psychiatric disorders

The frequency of sleep disruption and the degree to which insomnia significantly affects daytime function (e.g., quality of life, work limitations, mood/social life) are probably the most important determinants of the need for evaluation and treatment. If the initial evaluation identifies an acute stressor such as grief or noise, no further evaluation is indicated and treatment can be initiated. A more comprehensive evaluation should be pursued with nonresponders or if a comorbid condition is present or suspected.

The evaluation of chronic insomnia should involve a detailed history and examination to detect any coexisting medical or psychiatric illness and may include an interview with a partner or caregiver. Evaluation should include an assessment of sleep dysfunction and a sleep diary (*Table 3*).[3,8,10] Following this evaluation, the need for further testing or pharmacotherapy can be determined.[3,8,10,11]

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Table 3

Evaluation of Insomnia

History and examination

Helps detect any coexisting medical or psychiatric illness

Sleep history must span the entire day and should include an interview with the partner or caregiver

Interview partner or caregiver about patient's sleep habits, daytime functioning, substance use (e.g., alcohol, tobacco, caffeine), snoring, apnea, and unusual limb movement

Take medication history; physical examination should include neurologic examination, Mini-Mental State Examination

Sleep diary

A two-week sleep diary should record information on bedtime, rising time, daytime naps, sleep-onset latency, number of nighttime awakenings, total sleep time, and the patient's mood on arousal

Questions should include daytime symptoms such as somnolence and frequency of napping

Polysomnography, multiple sleep latency testing

Useful if sleep apnea or periodic limb movement disorder is suspected

Use when behavioral and psychopharmacologic treatments are unsuccessful

Actigraphy

An activity monitor or motion detector, typically worn on the wrist, records movement; the

Treatment Overview

Ideally, treatment for insomnia would improve sleep quantity and quality, improve daytime function (greater alertness and concentration), and cause minimal adverse drug effects. An approach to the evaluation and treatment of the patient with insomnia is shown in ***Figure 1***. Most experts recommend starting with nonpharmacologic therapy *(**Table 4**)*.[4,7,12–17] Good evidence supports a benefit for relaxation therapy and cognitive behavior therapy (CBT)[4,12] that may be sustained over six to 24 months.[13–15] Exercise improves sleep as effectively as benzodiazepines in some studies and, given its other health benefits, is recommended for patients with insomnia.[7,16] Behavioral and cognitive interventions have minimal risk of adverse effects, but disadvantages include high initial cost, lack of insurance coverage, few trained therapists, and decreased effectiveness in older adults.[17]

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