
Slide 1

The graphic features the word "Insomnia" in a bold, black, sans-serif font at the top. Below it is a circular illustration of a person sleeping in a bed, covered with a white blanket. The background of the circle is dark, with several white dollar signs (\$) and small white stars scattered around the head of the bed, suggesting a restless or troubled sleep. At the bottom of the graphic is the MHN logo, consisting of the letters "MHN" in a bold, black, sans-serif font, with the website address "www.mhn.com" written in a smaller font directly below it.

Insomnia



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Participant Handbook

Slide 2

Learning Objectives

- Present the symptoms, types, and costs of insomnia
- Discuss sleep needs and different types of sleep disorders
- Identify multiple potential causes of insomnia
- Provide information on when to seek medical help, and different strategies to consider in the treatment of insomnia


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Notes:

Slide 3

Why Worry About Insomnia?

- What are your concerns about sleep loss or insomnia?
- Take the Sleep Quiz!



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Take the sleep quiz in Handout A.

Notes:

Slide 4

Signs and Symptoms of Insomnia

- Difficulty falling asleep at night
- Waking up during the night
- Waking up too early
- Daytime fatigue or sleepiness
- Daytime irritability



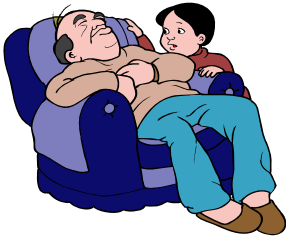
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Notes:

Slide 5

Types of Insomnia

- Transient (Mild)
- Short-term (Moderate)
- Chronic (Severe)



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Notes:

Slide 6

Insomnia Facts

- Approximately 25 to 30 million Americans (about 10%) have chronic insomnia
- Average costs of \$1,060 per worker in lost productivity and/or absenteeism
- Average increase in medical costs of \$924 to \$1,143 per worker with untreated insomnia
- Typical cost of medication treatment is only about \$200 per person per year


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Notes:

Slide 7

What is Sleep?

- Sleep needs
 - Children
 - Teens
 - Adults
 - Seniors
- Stages of sleep
 - Stage 1
 - Stage 2
 - Stage 3
 - Stage 4
 - REM (Rapid Eye Movement)
- Circadian rhythms
 - 24 to 25 hour body cycle





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Notes:

Slide 8

Causes of Insomnia

- Stress
- Anxiety
- Depression
- Stimulants
- Change in environment/work schedule
- Long-term use of sleep medications
- Medical conditions
- Behavioral insomnia
- Eating too much, too late



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Notes:

Slide 9

Sleep Disorders

- Sleep Apnea
- Parasomnias
- Narcolepsy
- Bruxism/Teeth Grinding
- Restless Legs Syndrome
- Snoring



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Notes:

Slide 10

When to Seek Medical Advice

Consult your physician if your insomnia:

- Is accompanied by physical symptoms (i.e., pain or breathing difficulties)
- Endangers your safety or that of others
- Is prolonged (a month or longer)

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Notes:

Slide 11

Screening and Diagnosis

- Examine Your Sleep Patterns
- Assess the Degree of Daytime Fatigue
- Participate in a Sleep Study
 - Polysomnography



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Notes:

Slide 12

Complications of Insomnia

- Possible increase in mental illness (depression)
- Decrease in mental acuity/problem solving skills
- Possible increase of severity of chronic illness
- Lead to serious or fatal accidents
- Headaches



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Notes:

Slide 13

Treatments

- Medical
 - Prescription sleeping pills
 - Over-the-counter treatments
- Cognitive Behavioral Therapy
- Complementary and Alternative Medicine
 - Melatonin
 - Valerian



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See *Handout B* for information about different sleep medications.

Notes:

Slide 14

Strategies and Tips for Insomnia

- Use the bed for intimacy and sleep only
- Stick to a schedule
- Limit your time in bed
- Avoid “trying” to sleep
- Hide the bedroom clocks
- Exercise and stay active
- Reset your body's clock
- Check your medications
- Don't put up with pain
- Find ways to relax
- Avoid or limit naps
- Minimize sleep interruptions
- Avoid or limit caffeine, alcohol and nicotine



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Notes:

Slide 15

Special Issues

- Travel and Insomnia: Jet Lag
 - Causes
 - Suggested Remedies
- Shift Work and Insomnia
 - Causes
 - Suggested Remedies



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Jet lag remedies abound. For some suggestions, see *Handout C*.

For more information about alleviating the effects of shiftwork, see *Handout D*.

Notes:

Slide 16

Resources

Online

- MHN Online www.MHN.com
- National Sleep Foundation
www.sleepfoundation.org
- Mayo Clinic www.mayoclinic.com

Articles/Reading

- *Your Guide to Healthy Sleep*. U.S. Dept. of Health and Human Services. National Institutes of Health (NIH) Publication No. 06-5271.

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Notes:

Handout A. Sleep Quiz (from Prevention Magazine)

For each statement, indicate if you think it is *True* or *False* about sleep and insomnia.

1. Everyone needs at least 8 hours of sleep a night. *True False*

2. Nodding off during a boring lecture, meeting, or your daughter's recital—especially in the midafternoon--is perfectly normal. *True False*

3. If you have insomnia, you need to go to bed earlier, sleep later, or nap. *True False*

4. Napping will ruin your night's sleep. *True False*

5. You have to miss a lot of sleep for at least a couple of days before it affects your performance.
True False

6. If you don't get enough sleep during the workweek, you can always catch up on the weekend.
True False

7. Exercising too close to your bedtime can keep you from falling asleep.
True False

8. You have to be in really bad shape--with chronic insomnia--to take prescription sleeping pills.
True False

9. If you take sleeping pills, you'll become addicted. *True False*

10. If you need to finish a presentation for work tomorrow, go to bed at your regular time, get up in the wee hours, and finish it then.
True False

Sleep Quiz (continued)

Scoring Key: All answers are False!

1. Everyone needs at least 8 hours of sleep a night.

Think most experts agree on this one? Wrong! "Asking how much sleep a healthy adult needs is like asking how many calories a healthy adult needs," says Perlis. "It depends." Since our sleep requirements are partly inherited, some of us need more, or less, than others. It ranges from as little as 5 hours to as much as 11 hours a night.

To figure out how much sleep you need, keep a diary for the next week or two, logging how much snooze time you get at night and how alert you feel the next day--without the use of stimulants such as a caffè latte or a splash of cold water on the face in the afternoon. If you need stimulants to keep you awake, you're not getting enough sleep.

2. Nodding off during a boring lecture, meeting, or your daughter's recital--especially in the midafternoon--is perfectly normal.

It's normal to feel slightly less energetic in the afternoon, due to your circadian rhythms of sleepiness and wakefulness. However, if you feel drowsy during the day you may be running a significant "sleep debt." That's sleep research lingo for the total hours of sleep you've lost, one sleep-deprived night after another. Here's how it happens: If you need 8 hours of sleep and get only 7, after a week you've lost the equivalent of almost one night's sleep. That's your sleep debt. And it's cumulative. One expert estimates that the average sleep debt among Americans is 500 hours a year.

If your sleep is interrupted once in a while, one good night's sleep will help you feel refreshed. Chronic problems--worry, the snoring spouse, the snuggling pet, the noisy crab-apple branch outside your window--will require specific solutions (a visit to the doctor, a bed in the hallway for Fluffy, a skilled arborist). But if you're cheating yourself of sleep time "to get things done," or if you just don't realize how much sleep you need, you have a "sleep phase disorder" of your own making. To remedy it, you're going to have to adjust your bedtime.

Take a week or so to experiment. Keep your rising time the same but move your bedtime back an hour for 3 or 4 days--say, from midnight to 11 o'clock. If you're still waking up tired and lurching to Starbucks in midafternoon, move your bedtime another 45 minutes to an hour earlier. Staring at the ceiling for 30 minutes before you drift off? Shift your new bedtime later in 15-minute increments until you hit your magic hour. How will you know? You'll wake up refreshed, you'll feel in top form at work, and decaf will do.

3. If you have insomnia, you need to go to bed earlier, sleep later, or nap

Step away from the bed! If you suffer from insomnia, all three of those "remedies" could make your tossing and turning much worse, says Kimberly Cote, PhD, a sleep researcher at Brock University in Ontario.

Blame it on something called the sleep homeostat. A hardwired system controlled by brain chemicals, it's not unlike your appetite. You know that the longer you go between meals and the more active you are, the hungrier you become. Likewise, your homeostat builds up a hunger for sleep based on how long you've been awake and how active you've been. The more sleep hungry you are, the faster you nod off and the more soundly you doze. But just as you're not eager for a big meal at night if you pig out all day or snack too close to dinner, you're not going to feel tired if you go to bed earlier or nap. When you have insomnia, experts recommend that you let your sleep homeostat adjust itself naturally, without trying to compensate with different bedtimes and catnaps. If your insomnia is chronic, see your doctor. S/he can diagnose and treat any contributing health problems or refer you to a sleep center.

4. Napping will ruin your night's sleep.

This is true *only* if you have insomnia. Otherwise some research has indicated that napping can help to improve performance later in the day. Nap as early in the day as possible, so your homeostat can build up the necessary hunger for sleep that will propel you into slumber come nightfall. And snooze for no more than 30 minutes. (Set an alarm clock.) If you nap longer, you'll be more likely to awaken from deep sleep and feel groggy. Nap less than 30 minutes, and you may not feel refreshed.

5. You have to miss a lot of sleep for at least a couple of days before it affects your performance.

Losing even 90 minutes of sleep for just one night can reduce your daytime alertness by as much as 32 percent. That's enough to impair your memory, your thinking ability, and your safety on the job and on the road. A recent Australian study found that volunteers who stayed awake just 6 hours past their normal bedtime for a single day performed as poorly on tests gauging attentiveness and reaction time as those who were legally drunk.

If you miss several hours of sleep one night, consider calling in sick the next day. Or ask if you can work from home. That way, you won't have to drive. If you have to go in and public transportation is an option, take it. Or call a coworker and ask if she can give you a lift to the office.

6. If you don't get enough sleep during the workweek, you can always catch up on the weekend.

Unless you have insomnia, it's theoretically possible to make up for some lost sleep by dozing longer on the weekend. But it's not realistic. With Saturday morning Little League and all those inevitable weekend odd jobs, chances are you won't really be able to make up for the sleep you missed. You'll end up finishing the week in the red, with an ever-bigger sleep debt.

It's always better to get a good night's sleep every night. But if you do rack up a sleep

debt during the workweek, try to sleep in on the weekend or take a nap so you can pay at least part of it down. You may need to invest in a white-noise machine unless you're able to sleep through the din of power lawn mowers, leaf blowers, and your kids' afternoon games in the backyard.

7. Exercising too close to your bedtime can keep you from falling asleep.

That's not true for everyone. In fact, research shows that even vigorous exercise right before bedtime doesn't affect sleep for many people (and in some cases it may help). This is good news if your busy schedule gives you a short window of time between dinner and bedtime to squeeze in some activity. People who have trouble sleeping can probably exercise about an hour before bed without problems. If you exercise at night and suspect that your workout may be keeping you up, reschedule it for earlier in the day for several days to see whether you sleep better.

8. You have to be in really bad shape--with chronic insomnia--to take prescription sleeping pills.

Actually, sleeping pills are most helpful if you take them before insomnia becomes chronic. They can help correct your off-kilter sleep homeostat. Newer prescription sleeping pills can help you drift off to sleep within minutes and stay asleep, thus breaking the cycle of sleeplessness and anxiety that can turn a few nights of insomnia into chronic sleeplessness. Pills are still controversial. Like all medicines, they can cause side effects (dizziness, headache, agitation), and they're not meant for long-term use.

Talk to your doctor about the pros and cons of medication. If you'd prefer a drug-free alternative, consider cognitive-behavioral therapy (CBT). Studies suggest it has a better outcome than pills.

9. If you take sleeping pills, you'll become addicted.

At one time, sleeping pills were addictive barbiturates. But the newer drugs, known as nonbenzodiazepines, are unlikely to leave you hooked. Because they don't make you high, the drugs don't pose the same abuse potential. And contrary to another popular belief, they won't lose effectiveness over time, so you won't have to keep taking a higher and higher dose.

10. If you need to finish a presentation for work tomorrow, go to bed at your regular time, get up in the wee hours, and finish it then.

Do just the opposite. If you have only 4 hours to spare for sleep, snoozing in the early morning (2 am to 6 am) will benefit you more than will late-night sleep (10 pm to 2 am), a recent Stanford University study suggests. You'll still function worse than you would with a full night's sleep, but you'll function better than you would had you gone to bed at 10.

Handout B. Types of Medications for Insomnia (from Mayo Clinic)

Over-the-counter sleeping pills are available in any pharmacy. Many of these medications contain antihistamines, which induce drowsiness by working against the central nervous system chemical histamine. The more often you take them, the less effective they become.

Drug	Side effects	Precautions	Considerations
Diphenhydramine (Sominex, Nytol)	May cause dry mouth, dizziness and prolonged drowsiness.	Not recommended for breast-feeding mothers. May not be safe for pregnant women and people who have a history of glaucoma, heart problems or enlarged prostate.	Don't drive or attempt other activities that require alertness while taking this drug.
Doxylamine (Unisom)	May cause prolonged drowsiness.	May not be safe for pregnant women, breast-feeding mothers and people who have a history of asthma, bronchitis, glaucoma, peptic ulcer or enlarged prostate.	Don't drive or attempt other activities that require alertness while taking this drug.

Nonbenzodiazepine hypnotic medications. Nonbenzodiazepine hypnotic medications quiet the nervous system, which helps induce sleep. They're metabolized quickly, which helps reduce the risk of side effects the next day. They're available by prescription only.

Drug	Side effects	Precautions	Considerations
Zolpidem tartrate (Ambien)	May cause dry mouth, diarrhea, dizziness or prolonged drowsiness.	May not be safe for people who have a history of depression, liver or kidney disease, or respiratory conditions.	Used mainly to help you fall asleep. Overuse is possible for people experiencing anxiety.
Zaleplon (Sonata)	May cause lightheadedness, abdominal pain, dizziness, headache or prolonged drowsiness.	Not recommended for people who have severe liver impairment. May not be safe for pregnant women and people who have a history of depression, liver or kidney disease, or respiratory conditions.	May be used to help you fall asleep or stay asleep.
Eszopiclone (Lunesta)	May cause an unpleasant taste in the mouth, rash, nausea, vomiting, dizziness, headache, depression, swelling, reduced interest in sex or chest pain.	May not be safe for pregnant women and people who have a history of drug or alcohol abuse, depression, lung disease or a condition that affects metabolism	Used mainly to help you stay asleep. May be used for a longer period of time than zolpidem or zaleplon. High-fat meals may make it less effective.

Benzodiazepine hypnotic medications. Benzodiazepines are an older class of sleeping pills. They're more likely than newer types to cause drowsiness or headaches the next morning, and they may become habit forming. They are available by prescription only.

Drug	Side effects	Precautions	Considerations
Triazolam (Halcion)	May cause lightheadedness, dizziness, prolonged drowsiness or euphoria. Episodes of amnesia have been reported. Rarely, may cause liver failure.	Not recommended for pregnant women. May not be safe for breast-feeding mothers and people who have a history of drug abuse, depression or respiratory conditions.	Used mainly to help you fall asleep. May interact with grapefruit juice, alcohol and many other medications. Drug must be stopped gradually.
Estazolam (Prosom)	May cause weakness, coordination problems, dizziness or prolonged drowsiness.	Not recommended for pregnant women. May not be safe for breast-feeding mothers and elderly adults.	Used mainly to help you stay asleep. May interact with many other medications.
Temazepam (Restoril)	May cause low blood pressure, diarrhea, nausea, dizziness, headache, prolonged drowsiness or blurred vision.	Not recommended for pregnant women. May not be safe for breast-feeding mothers, elderly people and people who have a history of lung disease or severe depression.	Used mainly to help you stay asleep. May interact with alcohol and many other medications.

Sedating antidepressants. Sometimes drugs used mainly to treat depression may ease insomnia when taken in lower doses. When insomnia is secondary to depression or anxiety, prescription antidepressants can improve both conditions at the same time.

Drug	Side effects	Precautions	Considerations
Trazodone (Desyrel)	May cause sweating, weight fluctuations, constipation, diarrhea, nausea, vomiting, headache, dizziness, prolonged drowsiness or blurred vision. Rarely, may cause cardiac complications or seizures.	May not be safe for pregnant women or people who have a history of heart problems or high blood pressure.	May cause abnormal, painful or prolonged erections. Starting with a low dose and increasing gradually may reduce drowsiness and dizziness. Interacts with the blood thinner Coumadin and many herbal supplements.
Amitriptyline	May cause weight gain, bloating, constipation, dizziness, headache, prolonged drowsiness or blurred vision. Rarely, may cause cardiac complications or seizures.	Not recommended during recovery from a heart attack or while using a monoamine oxidase inhibitor. May not be safe for pregnant women or people who have a history of heart problems, seizures, hyperthyroidism, liver disease, schizophrenia or bipolar disorder.	May interact with many other medications.

Handout C. Suggestions for Alleviating Jet Lag (from

www.Mayoclinic.com)

Jet lag remedies abound. How effective they are is a matter of some debate, but most experts agree on a few basic rules:

- If you have an important meeting or conference — anything that requires you to be in top form — try to arrive a few days early to give your body a chance to adjust.
- Get plenty of rest before your trip. Starting out sleep-deprived makes jet lag worse.
- If you're traveling east, try going to bed one hour earlier each night for a few days before your departure. Go to bed one hour later for several nights if you're flying west. If possible, eat meals closer to the time you'll be eating them at your destination.
- Drink plenty of water before, during and after your flight to counteract the dehydrating effects of bone-dry cabin air. It's not clear whether dehydration actually causes jet lag, as some experts maintain, but there's no doubt it makes symptoms worse. For the same reason, avoid alcohol and caffeine, both of which dehydrate you further.
- Try to sleep on the plane if it's nighttime at your destination. Earplugs, headphones and eye masks can help block out noise and light. If it's day where you're going, resist the urge to sleep.
- Set your watch to the new time before you leave. Once you reach your destination, try not to sleep until nighttime, no matter how tired you are.
- Use light to reset your internal clock; it's the most powerful natural tool for regulating the sleep-wake cycle. That's because the pineal gland, a part of the brain that influences circadian rhythms, responds to darkness and light transmitted by the optic nerve. At night, the pineal gland releases the sleep-promoting hormone melatonin; during the day, melatonin production stops.
- Plan ahead to determine the best times for light exposure based on your origination and destination points and overall sleep habits. An online jet lag calculator may make this task easier.
- For example, a poor sleeper traveling from New York to Paris is advised to seek light between 11:30 a.m. and 2:00 p.m. on the first day in France and between 8:30 a.m. and 11:00 a.m. on the second day. By the third or fourth day, the traveler's internal clock should mesh with the local time. The results are even better if light exposure is combined with exercise such as walking or jogging.

- Avoiding light at certain times is every bit as important as taking it in at others. The hypothetical New York to Paris traveler should avoid light from 9:00 a.m. to 11:30 a.m. on day one and from 6:00 a.m. to 8:30 a.m. on day two for best results. In the real world, that can be a challenge. At night, draw the blinds or drapes in your hotel room or use a sleep mask. During the day, dark glasses can help block out light.
- Consider melatonin supplements. Melatonin's reputation as a jet lag remedy and sleep aid has had its ups and downs. Some studies indicate that it's effective; other studies have found the opposite. The latest research seems to show that melatonin does indeed aid sleep during times when you wouldn't normally be resting, making it of particular benefit for people with jet lag. Small doses — as little as 1/3 milligram — seem just as effective as doses of 5 milligrams or higher. Some scientists think that higher doses actually overload the body, causing the melatonin to become ineffective. If you do use melatonin, take it 30 minutes before you plan to sleep or ask your doctor about the proper timing.
- Investigate other remedies. Most red-eye regulars have a favorite jet lag cure, from aromatherapy or homeopathy to special diets. Many of these diets alternate days of feasting and fasting and high-protein and low-protein meals. Though no anti-jet-lag diet has definitively been shown to work, some people swear by them. If the diets themselves seem too complicated, you can approximate their effects by simply eating high-protein foods to stay alert and carbohydrates when you want to sleep. Most alternative jet lag therapies aren't harmful and may be worth a try if nothing else helps.
- Take a slow boat. Jet lag got its name for a reason. Crossing time zones slowly allows your body more time to adjust and usually eliminates the worst jet lag symptoms.

Handout D. Suggestions for Shift-Workers

What can the individual do to cope with shift work?

People who work shifts face many problems that others do not recognize. The difficulties stem from the change in eating, sleeping, and working patterns. The following guidelines can help people cope better.

Guidelines for Diet and Eating Patterns

- *Maintain regular eating patterns as much as possible.* Balanced, varied meals are very important. Keep family meal times the same even though the work routine constantly changes. Family meals may need to be altered in content to suit the shiftworker.
- *Time meals carefully.* Afternoon workers should have the main meal in the middle of the day instead of the middle of the work shift. Night workers should eat lightly throughout the shift and have a moderate breakfast. This way they should not get too hungry while sleeping during the day and digestive discomfort should be minimal.
- *Pay careful attention to the type of food eaten.* Drink lots of water and eat the usual balance of vegetables, fruit, lean meat, poultry, fish, dairy products, grains and bread. Eat crackers and fruit instead of pop and candy bars during work breaks. Reduce the intake of salt, caffeine, and alcohol. Avoid greasy foods, particularly at night.
- *Avoid excessive use of antacids, tranquilizers and sleeping pills.* It is healthier to watch what and when you eat, and use relaxation techniques to aid sleep.
- *Relax during meals and allow time for digestion.*

Sleep

- *Sleep on a set schedule* to help establish a routine and to make sleep during the day easier. Some people may prefer to get a full period of rest just before the next work shift (as it is with "normal day" work). Try different patterns of work and sleep to see which is best for you.
- *Make sure that family and friends are aware of and considerate of the worker's sleep hours and needs.* Ensure that the shiftworker has a comfortable, dark, quiet place to sleep during the day. Air conditioning, a telephone answering machine (turn off the telephone ringer!), and good blinds on windows are recommended.
- *Make time for quiet relaxation before bed to help get better sleep.* Learn how to relax using muscle relaxation, breathing techniques and so on. Use mental

imagery to block out unpleasant thoughts. If you still do not fall asleep after an hour, read a book or listen to quiet music on the radio for a while. If sleep still does not come, reschedule sleeping hours for later in the day. Limit commitments later in the day to allow for napping.

Other Important Considerations

- Pay attention to general physical fitness and good health habits.
- Find out about and understand the potential health and safety effects of shiftwork.
- Learn how to recognize and reduce stress through physical fitness, relaxation techniques and so on.
- Take your leisure time seriously.