



Insomnia **No More**

Say Goodbye to Sleepless Nights

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www.ApneaTreatmentCenter.com

INTRODUCTION

According to the U.S. Department of Health and Human Services, approximately 60 million people suffer from insomnia. The inability to sleep affects approximately 40 percent of women and 30 percent of men.

It's a perplexing condition that drives some people to the brink of madness – nearly literally. Stephen King wrote a book called, "Insomnia" in which the title character is driven mad by his inability to rest and get enough sleep. The movie "Fight Club" was also heavily based on a main character that has insomnia.

Sleep is meant to revive us and get us ready to live for another day. When people are denied sleep, the effects can be devastating. Famous author, F. Scott Fitzgerald once wrote, "The worst thing in the world is to try to sleep and not to."

There is hope, however, in overcoming insomnia. It's not easy, but it can be done – even without the help of a professional sleep clinic. Inside the pages of this book, we'll explore insomnia in depth: its causes and how to finally get a good night's sleep!

If you have any comments or questions about this guide, please feel free to contact me at my direct email address: marc@apneatreatmentguide.com. And if you liked this guide, make sure to check out the free reports and paid guides at my catalog website: <http://www.ApneaTreatmentCatalog.com>.

To your good health,

A handwritten signature in blue ink that reads "Marc MacDonald". The signature is written in a cursive, flowing style with a large, stylized 'P' at the end.

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Medical Disclaimer

The material presented in this guide is not meant to replace medical advice. This is simply a discussion of information and particular treatments that have been used by others. Because of the potentially serious, long-term health issues related to insomnia, it is recommended that any treatment be discussed with your own physician. If an alternative method of treatment is perceived to be successful, it is also recommended that you undergo testing through traditional medical sources to verify your results.

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Chapter 1

WHAT IS INSOMNIA?

Insomnia is the sensation of daytime fatigue and impaired performance caused by insufficient sleep. In general, people with insomnia experience an inability to sleep despite being tired, a light, fitful sleep that leaves them fatigued upon awakening, or waking up too early.



Under debate is the question of whether insomnia is always a symptom of some other physical or psychological condition or whether in some cases it is a primary disorder of its own.

Common symptoms of insomnia include:

- feeling tired during the day
- having frequent headaches
- irritability
- lack of concentration
- you wake up feeling tired and not refreshed
- sleeping better away from home
- taking longer than 30 or 40 minutes to fall asleep
- waking repeatedly during the night
- waking far too early and being unable to fall back asleep
- being able to sleep only with the aid of sleeping pills or alcohol

Insomniacs often complain of being unable to close their eyes or rest their minds for any period of time. This author certainly knows what it's like to have your mind racing at bedtime. In our stress-filled world, we are often plagued with unfinished to-do lists in our heads. When it's quiet and time for sleep, many people have problems pushing those to-do lists aside in favor of dreamland.

Artistic types claim that they get their best ideas at night while lying in bed trying to sleep. One scholar even said that if a man had as many ideas during the day as he does when he has insomnia, he'd make a fortune. That may be true, but eventually, the lack of sleep will take its toll.

The worst part of insomnia is wanting to sleep but being unable to. The mind races and is unable to rest and that makes you overly tired and barely able to function the next day. Sometimes insomnia lasts longer than just a few nights.

Insomnia, usually temporary, is often categorized by how long it lasts:

1. **Transient** insomnia lasts for a few days.
2. **Short-term** insomnia lasts for no more than three weeks.
3. **Chronic insomnia** occurs when the following characteristics are present:

When a person has difficulty falling asleep, maintaining sleep, or has non-restorative sleep for at least three nights a week for one month or longer.

In addition, the patient is distressed and believes that normal daily functioning is impaired because of sleep loss.

Primary chronic insomnia occurs when it is the sole complaint of a patient.

Secondary chronic insomnia is caused by medical or psychiatric conditions, drugs, or emotional or psychiatric disorders.

Some common types of secondary insomnia include:

- **Sleep apnea** is a sleep disorder caused by difficulty breathing during sleep. Persistent, loud snoring and frequent long pauses in breathing during sleep, followed by choking or gasping for breath are the main signs of sleep apnea. For more information, visit www.sleepapnea.org.
- **Restless Legs Syndrome** is a sleep disorder characterized by unpleasant sensations



(creeping, burning, itching, pulling or tugging) in the legs or feet, occurring mostly in the evening and at night. Moving the legs around tends to relieve the unpleasant sensation temporarily. For more information, visit www.rls.org.

- **Sleep-wake schedule or circadian rhythm disorders** are sleep disorders caused by having sleep-wake schedules that do not match up with your natural sleep schedule. People who work the night shift may suffer from this problem
- **Insomnia due to medical conditions**: Many common medical problems and the drugs that treat them can cause insomnia, including allergies, arthritis, heart disease, hypertension, asthma, Parkinson's disease, attention deficit hyperactivity disorder, or hyperthyroidism. Physical discomfort (e.g. chronic pain) may also cause problems sleeping.
- **Insomnia due to substance use or withdrawal**: Many drugs and medications can cause sleep disturbances, either while taking them or while withdrawing from them. Alcohol, stimulants, sedatives, and even long-term use of sleep medications can cause insomnia.
- **Insomnia due to an emotional problem**: Insomnia can be a symptom of a number of emotional difficulties. If you find that you worry excessively about numerous minor matters or if you have experienced sadness or a loss of interest in activities for a number of weeks consult your physician.



Insomnia may also be defined in terms of inability to sleep at conventional times. The following are examples and are referred to as circadian rhythm disorders.

- **Delayed Sleep-Phase Syndrome:** Delayed sleep-phase syndrome is the term for a circadian clock that runs late but reliably. People who have this condition (usually adolescents) fall asleep very late at night or in early morning hours, but then they sleep normally
- **Advanced Sleep Syndrome.** This syndrome tends to develop in older people; it produces excessive sleepiness in the morning and undesired awakening early in the morning.

It might be helpful for you if we look at the basic sleep patterns and how doctors are able to identify specific problems based on what they already know about sleep.

Chapter 2

THE SLEEP CYCLE

Sufficient and restful sleep is a human need as basic as food, vital to emotional and physical well being. In recent years, scientists have made great strides in identifying patterns and functions of brain activity in sleep.

The daily cycle of life, which includes sleeping and waking, is called a *circadian* (meaning "about a day") rhythm, commonly referred to as the biologic clock. Hundreds of bodily functions follow biologic clocks, but sleeping and waking are the most prominent circadian rhythms.

Light signals coming through the eyes reset the circadian cycles each day. The response to light signals in the brain is an important key factor in sleep and in maintaining a normal circadian rhythm.

Light signals travel to a tiny cluster of nerves in the hypothalamus in the center of the brain, the body's master clock, which is called the *supra chiasmatic nucleus* or SCN. This nerve cluster takes its name from its location, which is just above (*supra*) the optic chiasm. The optic chiasm is a major junction for nerves transmitting information about light from the eyes.

The approach of dusk each day prompts the SCN to signal the nearby *pineal gland* (named so because it resembles a pine-cone) to produce the hormone melatonin.



Melatonin is an important hormone released in the brain that some experts believe is critical for the body's time-setting. The longer a person is in darkness the longer melatonin is secreted. Levels drop after staying in bright light. Research is ongoing to determine if high levels of melatonin cause sleep regardless of whether it is dark.

The sleep-wake cycles in humans are designed to produce activity during the day and sleep at night. There is also a natural peak in sleepiness at mid-day, the traditional siesta time. The sleeping and waking cycle is approximately 24 hours. If confined to windowless apartments, with no clocks or other time cues, sleeping and waking as their bodies dictate, humans typically live on slightly longer than 24-hour cycles.

In sleep studies, subjects spend about one-third of their time asleep, suggesting that most people need about eight hours of sleep each day. Infants may sleep as many as 16 hours a day. Individual adults differ in the amount of sleep they need to feel well rested, however.

Daily rhythms intermesh with a number of biologic and physical factors that may interfere or change individual patterns. For example, the firing of nerve cells in the brain may be faster or slower in different individuals. Such differences are fractions of a second but they can cause variations in the type, timing, and duration of a person's sleep.

In women, their monthly menstrual cycle can shift the sleep/wake pattern. Changes in season or various exposures to light and dark often unsettle the sleeping pattern.

The importance of sunlight as a cue for circadian rhythms is dramatized by the problems experienced by people who are totally blind: they commonly suffer trouble sleeping and other rhythm disruptions.

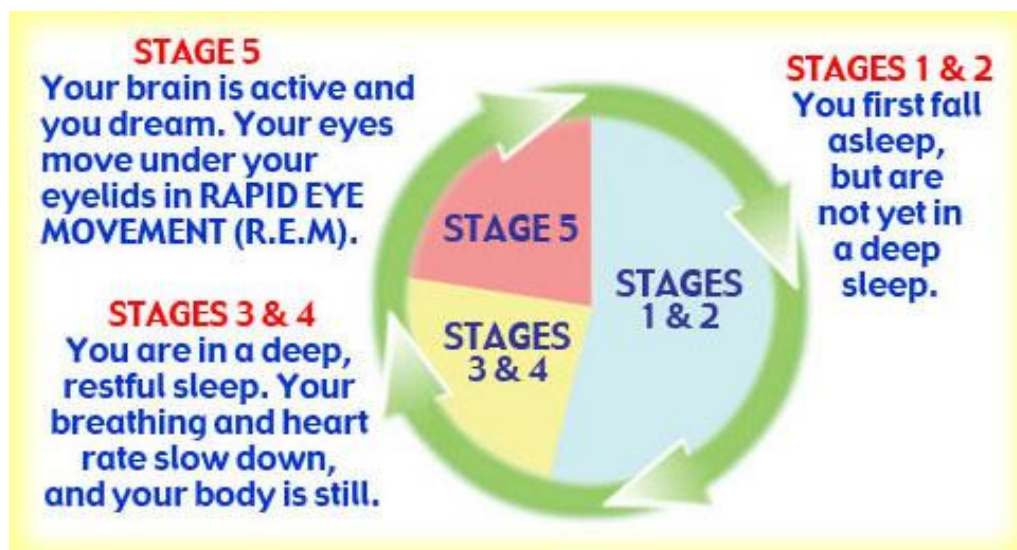
Non-REM vs. REM Sleep

Sleep consists of two distinct states that alternate in cycles and reflects differing levels of brain nerve cell activity. During a normal night's sleep, one progresses through these stages about five or six times.

Non-Rapid Eye Movement (Non-REM) sleep is also termed quiet sleep. Non-REM is further subdivided into three stages of progression:

- Stage 1 (light sleep).
- Stage 2 (so-called true sleep).
- Stage 3 to 4 (deep "slow-wave" or delta sleep).

With each descending stage, awakening becomes more difficult. It is not known what governs Non-REM sleep in the brain. A balance between certain hormones, particularly growth and stress hormones may be important for deep sleep.



Rapid Eye-Movement (REM) sleep is termed active sleep and most vivid dreams occur during this stage. REM-sleep brain activity is comparable to that in waking, but the muscles are virtually paralyzed, possibly preventing people from acting out their dreams.

In fact, except for vital organs like lungs and heart, the only muscles not paralyzed during REM are the eye muscles. REM sleep may be critical for learning and for day-to-day mood regulation. When people are sleep-deprived, their brains must work harder than when they are well rested.

The cycle between quiet (NREM) and active (REM) sleep generally follows the same pattern. After about 90 minutes of Non-REM sleep, eyes move rapidly behind closed lids, giving rise to REM sleep. As sleep progresses the Non-REM/REM cycle repeats. With each cycle, Non-REM sleep becomes progressively lighter, and REM sleep becomes progressively longer, lasting from a few minutes early in sleep to perhaps an hour at the end of the sleep episode.

Seems pretty simple and basic, doesn't it? After all, we don't have to learn how to sleep – it's something we automatically know how to do, but some people still have problems. Why?

Chapter 3

WHAT CAUSES INSOMNIA?

While there is no one cut and dried reason why some people can't sleep, most experts agree that insomnia is brought on by stress, anxiety, medications, and/or caffeine – among other things. Transient and short-term insomnia has many causes.

A reaction to change or stress is one of the most common causes of short-term and transient insomnia. This condition is sometimes referred to as *adjustment sleep disorder*.

The precipitating factor could be a major or traumatic event such as the following:

- An acute illness.
- Injury or surgery.
- The loss of a loved one.
- Job loss.

Temporary insomnia could also develop after a relatively minor event, including the following:

- Extremes in weather.
- An exam at school.
- Traveling.
- Trouble at work.

In such cases, normal sleep almost always returns when the condition resolves, the individual recovers from the event, or the person becomes acclimated to the new situation. Treatment is needed if sleepiness interferes with functioning or if it continues for more than a few weeks.

Insomnia in Women

Fluctuations in female hormones play a major role in insomnia in women over their lifetimes. Such insomnia is most often temporary.

The hormone progesterone promotes sleep. Levels of this hormone plunge during menstruation, causing insomnia. When they rise during ovulation, women may become sleepier than usual.



During Pregnancy, the effects of changes in progesterone levels in the first and last trimester can disrupt normal sleep patterns.

Insomnia can be a major problem in the first phases of menopause, when hormones are fluctuating intensely. Insomnia during this period may be due to different factors that occur.

In some women, hot flashes, sweating, and a sense of anxiety can awaken women suddenly and frequently at night during the first months of menopause. In such women, hormone replacement therapy may be beneficial.

Insomnia in the Elderly

Insomnia may also be perpetuated by psychological distress provoked by this life passage. In most cases, insomnia is temporary. Cases of chronic insomnia in women after 50 are more likely to be due to other causes

In one study, 20% of adults reported that light, noise, and uncomfortable temperatures caused their sleeplessness. Depending on the time of day too much or too little light can disrupt sleep. It is well known that a person's biologic circadian clock is triggered by sunlight and very bright artificial light to maintain wakefulness. One study indicated that even dim artificial light may disrupt sleep.



Insufficient exposure to light during the day, as occurs in some disabled elderly patients who rarely venture outside, may also be linked with sleep disturbances. One study suggests that when a person is exposed to bright daylight, melatonin levels increases in response to darkness at night, which aids sleep.

Insomnia due to Lifestyle and Medication

Caffeine most commonly disrupts sleep. Nicotine can cause wakefulness. Quitting smoking can also cause transient insomnia. In fact, it has been suggested that if sleeping could be improved during withdrawal from smoking, then perhaps it would be easier to quit smoking.

Excess alcohol or alcohol used to promote sleep, however, tends to fragment sleep and cause wakefulness a few hours later. It also increases the risk for other sleep disorders, including sleep apnea and restless legs. Alcoholics often suffer insomnia during withdrawal and, in some cases, for several years during recovery.

Your partner's sleep habits can also cause you to have insomnia. In one 1999 survey, 17% of women and 5% of men reported that their partner's sleep habits impaired their own sleep. Snoring can certainly be a factor in a partner's insomnia. In fact, in the same survey 44% of men and 36% of women reported snoring a few nights a week and of those who snored, 19% could be heard through a closed door.

Insomnia is a side effect of many common medications, including over-the-counter preparations that contain caffeine. People who suspect their medications are causing them to lose sleep should check with a physician or pharmacist.

Insomnia due to Psychological Conditions

Chronic insomnia can also have deep seated roots. In many cases, it is unclear if chronic insomnia is a symptom of some physical or psychological condition or if it is a primary disorder of its own. In most instances, a collaboration of psychological and physical conditions causes the failure to sleep.

Psychophysiologic insomnia is the revolving door of sleeplessness:

- An episode of transient insomnia disrupts the person's circadian rhythm.
- The patient begins to associate the bed not with rest and relaxation but with a struggle to sleep. A pattern of sleep failure emerges.
- Overtime, this event repeats, and bedtime becomes a source of anxiety. Once in bed, the patient broods over the inability to sleep and the loss of mental control. All attempts to sleep fail.
- After such a cycle is established, insomnia becomes a self-fulfilling prophecy that can persist indefinitely.

Sometimes anxiety and the inability to sleep dates back to childhood when parents used various threats to force their children into sleep for which they may not have been ready.

Insomnia Due to Illness



Pain and discomfort from an injury, illness, or disability can also impair sleep. Among the many medical problems that can cause

insomnia are: allergies, arthritis, cancer, heart disease, gastro reflux disease, hypertension, asthma, and ADHD.

When people are in pain or sick, they general have medication to help them through the uncomfortable symptoms. Unfortunately, many of these medicines can also cause insomnia to onset or worsen. They include: nicotine, some anti-depressants, beta-blockers, etc.

Insomnia Due to Anxiety



A large percentage of chronic insomnia cases prove to have a psychological or even psychiatric basis. The disorders that most often cause insomnia are the following: anxiety, depression, and bipolar disorder.

It should be noted, however, that insomnia may cause emotional problems, and it is often unclear which condition has triggered the other, or if the two conditions, in fact, have a common source.

Anxiety accounts for almost 50 percent of the cases of chronic insomnia. Feeling uptight and anxious can keep you from relaxing enough to go to sleep.

A national survey by the US Department of Health and Human Services found that 47 percent of those reporting severe insomnia also reported feeling a high level of emotional distress. It could be that you become so tense and restless during a hard day at work that you don't even expect to sleep well at night.

An estimated 10% to 15% of chronic insomnia cases result from substance abuse, especially alcohol, cocaine, and sedatives. One or two alcoholic drinks at dinner, for most people, poses little danger of alcoholism and may help reduce stress and initiate sleep.

Insomnia Due to Work and Stress

A number of studies have reported that shift work throws off the body's circadian rhythm and have suggested that such changes could lead to chronic insomnia. One study found that 53% of night-shift workers fall asleep on the job at least once a week, implying that their internal clocks do not adjust to unusual work times.

They are also at much higher risk than other workers for automobile accidents due to their drowsiness and may also have a higher risk for health problems in general. A Japanese study reporting on different aspects of insomnia found that excessive computer work was associated with all forms of insomnia. People who were over-involved with their work tended to have trouble falling asleep and they tended to awaken earlier than average.

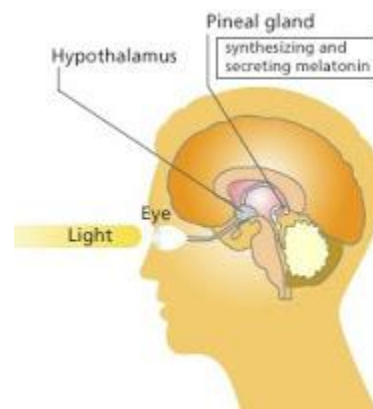
Insomnia and Aging

Persistently high levels of stress hormones, particularly cortisol, may be key factors in many cases of chronic insomnia, particularly insomnia related to aging and psychiatric disorders. High levels of cortisol reduce REM sleep. Abnormal levels of other biologic factors may also play a role in specific situations.

An imbalance in specific hormones important in sleep has been associated with aging and may be partly responsible for the higher incidence of insomnia in older people. Older people experience higher levels of major stress hormones (cortisol and adrenocorticotropin) during the night. Why?

Normal aging is associated with a blunting of regular, cyclical surges of growth hormone. This hormone, which is normally secreted in the late night, is associated not only with growth but with deep, slow-wave sleep. Older people generally have less slow-wave sleep.

Melatonin levels, the hormone secreted by the pineal gland are lower, in older people. Some research suggests that elderly people may have lower levels in general simply because many stay mostly indoors and out of normal sunlight.



In spite of such observations a number of studies report no higher risk for insomnia in older adults who have no accompanying mental or physical problems.

Insomnia due to Genes

There may also be a genetic link to insomnia. Sleep problems seem to run in families; approximately 35% of people with insomnia have a positive family history, with the mother being the most commonly affected family member. Still, because so many factors are involved in insomnia, a genetic component is difficult to define.

So we've seen that there can be many reasons why some people simply cannot sleep. Does this disorder affect certain people more than others?

Chapter 4

WHO HAS INSOMNIA?

Studies estimate that between a quarter and one-third of American and European adults experience some insomnia each year, with between 10% and 20% of them suffering severe sleeplessness. In spite of this widespread problem, however, studies suggest that only about 30% of American adults who visit their doctor ever discuss sleep problems. Conversely, physicians seem rarely to ask patients about their sleep habits or problems.



Studies report that the strongest risk factors for insomnia are psychiatric problems, particularly depression, and physical complaints, such as headaches and chronic pain that have no identifiable cause (called somatic symptoms). About 90% of people with depression have insomnia.

In addition, insomnia and depression often coincide with somatic symptoms, particularly chronic pain. In fact, insomnia worsens chronic pain even in people who are not depressed. Headaches that occur during the night or early in the morning may actually be caused by sleep disorders. In one study, patients who had these complaints were treated for the sleep disorder only, and over 65% reported that their headaches were cured.

Overall, insomnia is more common in women than men, although men are not immune from insomnia. Sleep efficiency deteriorates equally in men and women as they get older.

One major study suggested that as men go from age 16 to 50, they lose about 80% of their deep sleep. During that period, light sleep increases and REM sleep remains unchanged. (The study did not use women as subjects, and there is some evidence to suggest they are not as affected.) After age 44 REM and total sleep diminish and awakenings increase.

Younger adult women suffer from insomnia because of both cultural and biologic factors. As we've already examined, a number of hormonal events can disturb sleep, including premenstrual syndrome, menstruation, pregnancy, and menopause. All these conditions are natural, and in most cases the wakefulness associated with them is temporary and can be ameliorated with sleep hygiene and time.

After childbirth, most women develop a high sensitivity to the sounds of their children, which causes them to wake easily. Women who have had children sleep less efficiently than women who have not had children. It is possible that many women never unlearn this sensitivity and continue to wake easily long after the children have grown.

After menopause women are susceptible to the same environmental and biologic causes of insomnia as men are. Older women who are *not* bothered by sleeplessness tend to have longer and better sleep than non-insomniac men their own age.

Other groups of individuals who are likely to suffer from insomnia include those who travel frequently – especially when crossing time lines, those with post-traumatic stress syndrome, and individuals with brain injuries.

Most people sleep around 7 hours a night. Doctors suggest that we get a full 8 hours of rest. The reason is because we are much more mentally alert when we do get a good night's sleep. Without that sleep, the risks can be huge.



Chapter 5

HOW SERIOUS IS INSOMNIA?

A 2002 study of sleeping habits in over one million people reported that people who slept seven hours a night enjoyed the longest lifespan. Those who slept 8 hours or more or 6 hours or less had higher mortality rates. People with insomnia did not have elevated mortality rates, which supported earlier evidence. People who took sleeping pills, however, did have lower survival rates.

Insomnia is virtually never lethal except in rare cases, such the genetic disorder called fatal familial insomnia. This rare degenerative brain disease develops in late adulthood. It is progressive and the individual develops intractable insomnia, which eventually becomes fatal.



As many as 200,000 automobile accidents in the US and 1,500 deaths from such accidents are caused by sleepiness. Studies continue to report that drowsy driving is as risky as drunk driving. Estimates on fatigue as a cause of automobile crashes range from 1% to 56%, depending on the study.

In a major 1995 poll, for example, 33% of those surveyed said they had fallen asleep while driving and 10% of these people had had accidents because of this. One study strongly suggested that it was *habitual* sleepiness, however, and not just being sleepy at the time of an accident that places people at higher risk.

Surveys in 2001 and 2002 reported that people with severe insomnia had a quality of life that was almost as poor as in people with chronic conditions such as heart failure. In these studies, people with known depression or anxiety were not included.

Insomnia Affects Daytime Performance

In addition to more daytime sleepiness, people with insomnia complained of more attention and memory problems compared to good sleepers. Insomniacs also experience more irritability, mistakes at work, and poorer relationships with their family than people who sleep well.

Insomnia can have an effect on your waking behaviors such as job performance and thinking. In fact, sleep disorders will probably worsen some behaviors in the following way:

- Reduced concentration. Some experts report that deep sleep deprivation impairs the brain's ability to process information.
- Impaired task performance. One study reported that missing only two to three hours of sleep every night for a week significantly impaired performance and mood. An Australian study reported that 17 hours of sleep deprivation causes impaired performance levels comparable to those found in people who have blood alcohol levels of 0.10%, a level that defines intoxication in many US states.
- Effect on learning. Whether insomnia significantly impairs learning is unclear. Some studies have reported problems in memorization, although others have found no differences in test scores between people with temporary sleep loss and those with full sleep.

Insomnia Affects Mood

We have already told you that stress and depression are major causes of insomnia; however, lack of sleep may also increase the activity of the hormones and pathways in the brain that can *produce* emotional problems.

Even modest alterations in waking and sleeping patterns can have significant effects on a person's mood. Persistent insomnia may even predict the future development of emotional disorders in some cases. Some investigators, in fact, are exploring the possibility of preventing psychiatric disorders by early recognition and treatment of insomnia.

In fact, the inability to sleep can be a major cause of depression. Signs to look out for that link insomnia with depression include:

- waking in the middle of the night or early morning and being unable to get back to sleep
- loss of interest, energy, and appetite
- aggression and anti-social behavior
- aches and pains that have no physical explanation



Other Health Consequences

Although alcohol and substance abuse can cause insomnia, the conditions may be reversed. For example, a 1999 survey reported that 14% of American adults use alcohol within a month to help them sleep, with 2.5% reporting frequent use of alcohol to reduce sleep.

Although there has been some concern that insomnia may increase the risk for heart problems, little evidence has supported any significant dangers. One study reported signs of heart and nervous system activity in people with chronic insomnia that might place such individuals at risk for coronary heart disease.

If it exists, however, this increased danger is very modest compared with other risk factors for heart disease. Yet another report suggested that sleep complaints in elderly people without coronary artery disease predicted a first heart attack. Sleep disorders in such cases may have been a marker for depression, however, which is a risk factor for heart attacks in elderly people.

There's no doubt that insomnia can take its toll on the human body. Lack of sleep does more than make us tired. If the disorder exists for a period of time, it can have serious health consequences. We can give you all sorts of signs to look out for to see if you have insomnia, but many times, going to a professional can help you find out if you have insomnia.

Chapter 6

DIAGNOSING INSOMNIA

Diagnosing sleep disturbance and its cause is the most important step in restoring healthy sleep. There is little agreement, even among experts, however, on the best methods for effectively assessing a patient's insomnia.

	I went to bed last night at:	I got out of bed this morning at:	Last night, I feel asleep in:	Times I woke up during the night:	How I felt when I woke up:	Last night, I slept a total of:	My sleep was disturbed by:
MONDAY	10 PM	6:30 AM	45 minutes	3 times	TIRED	5 hours	couldn't get comfortable
TUESDAY							
WEDNESDAY							
THURSDAY							
FRIDAY							

A major difficulty in diagnosing this problem is its subjective nature. One study showed that there was no difference in sleep behaviors between people who said they were insomniacs and people who said they weren't.

People who believe they have insomnia may have actually had frequent brief awakenings during sleep that they perceive as being continuously awake. Some experts recommend, however that any individual should be treated aggressively if he or she believes they have insomnia and also is suffering daytime fatigue and impaired concentration and memory.

A number of questionnaires are available for determining whether a patient has insomnia or other sleep disorders. For example, the physician may ask the following questions:

- How would the sleep problem be described?
- How long has the sleep problem been experienced?
- How long does it take to fall asleep?

- How many times a week does it occur?
- How restful is sleep?
- Does the difficulty lie in getting to sleep or in waking up early?
- What is the sleep environment like (Noisy? Not dark enough?)?
- How does insomnia affect daytime functioning?
- What medications are being taken (including the use of self-medications for insomnia, such as herbs, alcohol, and over-the-counter or prescription drugs)?
- Is the patient taking or withdrawing from stimulants, such as coffee or tobacco?
- How much alcohol is consumed per day?
- What stresses or emotional factors may be present?
- Has the patient experienced any significant life changes?
- Does the patient snore or gasp during sleep (an indication of sleep apnea)?
- Does the patient have leg problems (cramps, twitching, crawling feelings)?
- If there is a bed partner, is his or her behavior distressing or disturbing?
- Is the patient a shift worker?

It may be suggested that you keep a sleep diary to keep track of your sleeping habits. Every day for two weeks, the patient should record all sleep-related information, including responses to questions listed above described on a daily basis. A bed partner can help by adding his or her observations of the patient's sleep behavior.

Here's what you should include in your sleep diary:

- Time you went to bed and woke up
- Total sleep hours
- Quality of sleep

- Times that you were awake during the night and what you did (e.g. stayed in bed with eyes closed or got up, had a glass of milk and meditated)
- Amount of caffeine or alcohol you consumed and times of consumption
- Types of food and drink and times of consumption
- Feelings - happiness, sadness, stress, anxiety
- Drugs or medications taken, amounts taken and times of consumption.

Sleep Tests

Believe it or not, there is a way to actually measure sleepiness. It's called the Epworth Sleepiness Scale and it uses a simple questionnaire to measure excessive sleepiness during eight situations.

Here is the general form:

Table 1. The EPWORTH Sleepiness Scale

THE EPWORTH SLEEPINESS SCALE	
SITUATION	CHANCE OF DOZING (Indicate a score of 0 to 3) 0 = no chance of dozing 1 = slight chance of dozing 2 = moderate chance of dozing 3 = high chance of dozing
Sitting and reading	
Watching TV	
Sitting inactive in a public place (e.g., a theater or a meeting)	
Riding as a passenger in a car for an hour without a break	
Lying down to rest in the afternoon when circumstances permit	
Sitting and talking to someone	
Sitting quietly after a lunch without alcohol	

Sitting in a car while stopped for a few minutes in traffic	
<p>Score Results</p> <p>1-6 Getting enough sleep: 4-8 Tends to be sleepy but is average: 9 and over Very sleepy and suggestive of sleep-disordered breathing. Patient should seek medical advice.</p>	

You might also be given a Multiple Sleep Latency Test. The multiple sleep latency test (MSLT) employs a machine that measures the time it takes to fall asleep lying in a quiet room during the



day.

The patient takes four or five scheduled naps two hours apart. People with healthy sleep habits fall asleep in about 10 to 20 minutes. The test can detect changes in sleepiness associated with sleep deprivation in patients with insomnia.

It has limitations, however, and does not take into consideration any situations that may affect the patients' mental state and therefore their ability to fall asleep. It is used mainly after other sleep disorders have been ruled out and the doctor is uncertain whether or not insomnia is a correct diagnosis.

In cases where a physician is unable to help with your insomnia, you may be referred to a sleep disorder clinic for diagnosis and treatment.

Chapter 7

SLEEP DISORDER CLINICS

As we've said, there are numerous sleep disorder centers designed to specifically diagnose and provide ways for you to overcome your insomnia. While the thought of going to a clinic and having people watch you sleep is just a little much for you, fear not. Actually, sleep disorder centers are there for that specific reason and you will most likely get some answers to your sleeping problems.

Among the signs that may indicate a need for a sleep disorders center are the following:

- Insomnia due to psychological disorders.
- Sleeping problems due to substance abuse.
- Snoring and sudden awakening with gasping for breath (possible sleep apnea).
- Severe restless legs syndrome.
- Persistent daytime sleepiness.
- Sudden episodes of falling asleep during the day (possible narcolepsy).

What can you expect when you go to a clinic like this?

You will be participating in a sleep study or polysomnogram which is a test that will record your physical state during various stages of sleep and wakefulness. It provides data that are essential in evaluating sleep and sleep-related complaints, such as identifying sleep stages, body position, blood oxygen levels, respiratory events, muscle tone, heart rate, amount of snoring and general sleep behavior.



Usually you will make an appointment for your visit, which will take place at night. The sleep center may send you forms requesting your medical and sleep history prior to your appointment with the doctor. The form may ask for your bed partner's responses to some of these questions, since you may not be aware that you snore, stop breathing (sleep apnea) or kick your legs when you sleep. It also may provide tips and some special instructions for your sleep test.

Before your sleep test, you may meet with a physician or sleep specialist, who will go over your medical and sleep history. You may participate in a "split-night" test, in which half the night will be used to diagnose your sleep problem, and the other half will be used to treat the problem. This is sometimes done with patients who are being tested for sleep apnea.

After your arrival at the sleep center, you may be asked to complete a questionnaire on your sleep the night before. Many sleep centers offer a video or other information about the sleep study or specific disorders such as sleep apnea, since a significant percentage of those who have sleep tests are suspected to have sleep apnea. The video may also address what you should expect during the sleep test to ease any fears that you may have. Then you will be asked to change into nightclothes.



After changing, a polysomnographic technician will connect you to the electrodes that will record your brain waves and muscle movements throughout the night. The electrodes are placed in specific areas and applied with water-soluble glue and tape. The electrodes record brain waves, muscle movement, rapid eye movement (REM), air intake, and periodic limb movement.

A microphone attached to your neck records snoring, and two belt-like straps around the chest and lower abdomen monitor muscle movement during breathing. Despite all of the equipment, most people say it doesn't disrupt their sleep.

After settling into bed, your technician may go to a monitoring room and ask you over an intercom to perform certain tasks that will show the electrodes are recording properly. You will be observed on a television monitor during the night, but that is to allow the technician to note your body movements during sleep.

When everything is working properly, the lights will be turned off and you can go to sleep. Many patients are so chronically tired that they have no problem falling asleep.

While you are sleeping, your brain waves will be recorded to determine when you are awake or in Stage 1, 2, 3, 4 or REM sleep. You will be awakened in the morning and the electrodes will be removed. Since they are applied with water-soluble glue or tape, removal isn't painful.

You will need to make an appointment with a sleep specialist to review the results of your study. You might be asked to complete a questionnaire concerning your sleep the previous night, and then you can go home.

Based on the results of your sleep study, you may be given treatment for a specific sleep disorder. For example, patients with sleep apnea may be prescribed Continuous Positive Airway Pressure or CPAP, which is a device that gently blows air into your nasal passages to keep the airway open while you are asleep.

What to Bring

Here are some things you need to bring along with you for your sleep test:

- Nightgown, pajamas or any comfortable sleep wear, preferably with a button-down front.
- Your favorite pillow or blanket. Sleep centers provide bedding including sheets, blankets and pillows, but yours may help you sleep better.
- Toiletries such as a toothbrush, toothpaste, hairbrush or comb.
- Clothes for the following day.
- Any needed medications.
- A book or other reading material.

Things to Do Before Your Test

- On the day of your test, wash and dry your hair. Try not to use any hair products, such as gels, hairsprays or heavy conditioners, because it may prevent the electrodes from sticking to your scalp.
- Remove nail polish and/or artificial nails from at least two fingers. The oximeter that is placed on your finger to monitor blood oxygen levels reads this information through the nail, so any polish or acrylic will not provide an accurate reading.
- Do not wear make-up. Some electrodes are on the face, so this area must be clean in order to get a good connection.
- Generally, you are asked to obtain a normal night's sleep before the test, unless instructed otherwise by your doctor. Continue to take your regular medications and limit caffeine intake the day of your test.

Once you have the diagnosis of insomnia, you might be wondering what you can do to overcome it. With the help of your doctor or sleep specialist, you can work together to overcome your sleeplessness. You should also be aware of the information you can do yourself or ask your doctor about in treatment of this disorder. Drug therapy is a popular method of overcoming insomnia.

Chapter 8

MEDICATIONS THAT CAN HELP

According to a 1999 survey, about 30% of American women and 20% of men reported taking a medication to help them sleep at some time during the course of a year. Over half of these drugs were over the counter medications.



It should be stressed that only behavioral or psychological techniques can actually cure insomnia, whereas prolonged use of sleeping pills can only result in dependency. In addition, a 2002 study reported lower survival rates in people who took sleeping pills, although more research is needed to clarify this association.

Why do so many people want to take sleeping pills for their insomnia? Many people experiencing sleep problems want a quick fix for their problems. Several of the treatments that are often successful are time intensive and require a lot of work on the part of the person experiencing insomnia.

The thought of a pill or medication that can solve the problem quickly and easily is very appealing. Unfortunately, the reality behind the use of sleep medications is that they don't solve the problem, and can often exacerbate insomnia over the long term.

If you want to take medications to help you sleep because you are in a great deal of pain, are traveling or just need to get some sleep, pay attention to the type of medication you choose and try to use the medication only when you really need it. Additionally, if you can commit to making your sleep habits and sleep environment better and more conducive to sleep, you have a greater chance of limiting the effects of insomnia on your life.

Hypnotics

Drugs used specifically for improving sleeping are called hypnotics. Benzodiazepines are the ones most commonly prescribed, but others are available that may be better tolerated and have less risk of dependency. They should generally be used only to prevent the vicious cycle of

psychophysiological insomnia in people with transient or short-term insomnia when non-medical treatments have failed.

Originally developed to treat anxiety, these drugs reinforce a chemical in the brain that inhibits neuron excitability. Commonly prescribed benzodiazepines include the following:

- **Long acting benzodiazepines** include flurazepam (Dalmane) and clonazepam (Klonopin), quazepam (Doral).
- **Medium- to short-acting benzodiazepines** include triazolam (Halcion), lorazepam (Ativan), alprazolam (Xanax), temazepam (Restoril), oxazepam (Serax), prazepam (Centrax), estazolam (ProSom), and flunitrazepam (Rohypnol). Short-acting benzodiazepines are particularly useful for air travelers who want to reduce the effects of jet lag.

Sleep Medication Side Effects

Of course, as with any medication, side effects are to be expected. When taking benzodiazepines, be mindful of what could happen when you take them. Common side effects of these drugs include:

- The drugs may increase depression, a common co-condition in any case in many people with insomnia.
- Respiratory depression may occur with overuse or with people with pre-existing respiratory illness.
- Long-acting agents have a very high rate of residual daytime drowsiness compared to others. They have been associated with a significantly increased risk for automobile accidents and falls in the elderly particularly in the first week after taking them. Shorter-acting benzodiazepines do not appear to pose as high a risk.
- Memory loss (so-called traveler's amnesia), sleepwalking, and odd mood states have been reported after taking Halcion and other short-acting benzodiazepines. These effects are rare and probably enhanced by alcohol.



- Because these drugs cross the placenta and enter breast milk, pregnant women or nursing mothers should not use them. An association was reported between the use of benzodiazepines in the first trimester of pregnancy and the development of cleft lip in newborns.
- In rare cases, overdoses have been fatal.

Elderly people are more susceptible to side effects and should usually start at half the dose prescribed for younger people and should not take long-acting forms. Side effects may differ depending on whether the benzodiazepine is long- or short-acting.

Benzodiazepines are potentially dangerous when used in combination with alcohol, and some medications, like the ulcer medication cimetidine, can slow the metabolism of the benzodiazepine.

Withdrawal Symptoms

This type of medication can be highly addictive. When you stop taking this medication, you will probably have some withdrawal symptoms. Withdrawal symptoms usually occur after prolonged use and indicate dependence. They can last one to three weeks after stopping the drug and may include the following:

- Gastrointestinal distress.
- Sweating.
- Disturbed heart rhythm.



In severe cases, patients might hallucinate or experience seizures, even a week or more after the drug has been stopped.

Rebound insomnia, which often occurs after withdrawal, typically includes one to two nights of sleep disturbance, daytime sleepiness, and anxiety. In some cases patients may experience the return of original severe insomnia. The chances for rebound are higher with the short-acting benzodiazepines than with the longer-acting ones.

Other Precautions

In addition, the following precautions are important in taking sleeping pills:

- Start with non-prescription medication.

- If prescription hypnotics are required, start with as low a dose as possible.
- In general, do not take either prescription nor non-prescription sleeping pills on consecutive days or for more than two to four days a week.
- If insomnia is still a problem after stopping the drug and continuing with good sleep hygiene, this pattern can be repeated again, but for no longer than four weeks.
- Medication should be withdrawn gradually and the patient should be aware of the possibility of rebound insomnia when stopping medication.
- Alcohol intensifies the side effects of all sleeping medication and should be avoided.

If chronic insomnia is a companion to depression or anxiety, treating these problems first may be the best approach. Some newer antidepressants may be effective at treating both depression and insomnia at once.

Over-The-Counter Sleep Medications



Over-the-counter and prescription sleeping medications are very commonly used medications.

Antihistamines cause drowsiness and many over-the-counter preparations are available that might help transient insomnia. Most over the counter sleep aids use antihistamines ingredients, most commonly diphenhydramine. They may simply contain diphenhydramine alone (Nytol, Sleep-Eez, Sominex) or contain combinations of diphenhydramine with pain relievers (Anacin P.M., Exedrin P.M., Tylenol P.M.). Doxylamine (Unisom) is another antihistamine used in sleep medications.

Unfortunately, most of these drugs can leave patients drowsy the next day and may not be very effective in providing restful sleep. Side effects include daytime sleepiness, dizziness, drunken movement, blurred vision, and dry mouth and throat.

In general, these types of medications should be avoided by people with angina, heart arrhythmias, glaucoma, problems urinating, or while taking medications to prevent nausea or motion sickness. Some, such as those containing doxylamine should also be avoided by patients with chronic lung disease.

Actually, for most people, over-the-counter (OTC) sleep medications are not a good choice. These medications are not intended for long-term use and rely on the sedating side effects of antihistamine to facilitate sleep.

While taking an OTC sleep medication, avoid driving and other tasks where mental alertness is required. The sedative effects of antihistamines may increase your risk of falling as well.

Sleep experienced while taking OTC sleep medications is not of the same quality as normal sleep. Some people who take OTC sleep medications spend as little as 5% of their total sleep time in deep sleep (compared to approximately 10-25% for healthy sleepers).

Only use OTC sleep medications for transient or short-term insomnia and in conjunction with changes to your sleeping habits. Be sure to pay attention to your body's physical response to them. Immediately discontinue use if you experience any severe adverse effects such as forgetfulness, constipation, urinary retention, and dizziness.

Medications without Benzodiazepine

There are some medications on the market that do not contain benzodiazepine. These pills are shorter acting and can induce sleep with fewer side effects than the benzodiazepines. These hypnotics include zolpidem (Ambien), zaleplon (Sonata), and zopiclone (Imovane).

The brands have some differences, such as the following:

- **Zaleplon (Sonata)** is the shortest-acting hypnotic available. It can be taken even in the middle of the night and if a patient needs to awaken in only four hours. In such cases, the medication is effective and still does not leave the person overly sedated in the morning. It appears to have a better safety record than other hypnotics and may be particularly useful for patients in the younger and older age groups.
- **Zolpidem (Ambien)** may be useful for people who take it as soon as they go to bed, since it is longer acting than Sonata. A 2002 study suggested that the drug might be used on an as-needed basis, with up to five tablets taken a week. After three weeks, two-thirds of the patients taking zolpidem in this way were able to reduce their tablet intake by more than 25% without losing improvements in sleep.



These agents can be particularly helpful for preventing jet lag. They also may be beneficial for people who also have accompanying mood disorders, such as depression or post-traumatic stress disorder. They also appear to be safe and effective for elderly patients, even possibly those with chronic lung problems, but research is needed to confirm this. They are expensive, however.

Of course, there will be some possible side effects that can come about even with these types of pills. They have fewer morning side effects than the benzodiazepines, including morning sedation and memory loss (although they can occur to some degree). Ambien's record of adverse effects is similar to that of triazolam (Halcyon), the short-acting benzodiazepine. Sonata appears to have less severe side effects. In general, for both drugs, the side effects are mild but can include the following:

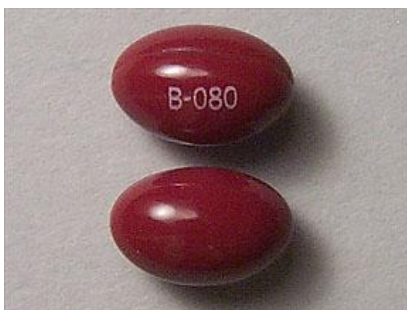
- Nausea.
- Dizziness.
- Nightmares.
- Agitation or antagonistic mood in the morning.
- Amnesia (in high doses).
- Headache.
- Rare fatal overdoses have been reported.

As with any hypnotics, alcohol poses a danger with these drugs. The risk for rebound, dependence, and tolerance is lower with these agents than with benzodiazepine, particularly with Sonata.

In one study, people who took this hypnotic every night for one year had no evidence of dependency or withdrawal symptoms, but more large studies are needed to confirm long-term safety. These agents are still subject to abuse. In any case, no hypnotic should be taken for more than a few days or at higher than the recommended dose.

Other Sleep Medications

A combination of newer antidepressants and structured psychotherapy is proving to be very effective for improving both depression and insomnia in patients with both conditions.



Chloral hydrate is relatively reliable and has been in use since 1832. Many physicians prescribe it for short-term use if other hypnotics cannot be used. It has significant adverse effects, however, and some experts believe it no longer has a role in the treatment of insomnia.

In any case it does not appear to be effective in the elderly.

Chloral hydrate poses a risk for addiction and it can be fatal in overdose. It also has carcinogenic properties and can harm genetic material.

Potential side effects also include irritation of the skin, mucous membranes, and stomach. People with stomach, heart, kidney, or liver disorders should not take this drug at all. If a child is given it (usually for minor surgery), then that child should never be given chloral hydrate again in his or her lifetime.

Since most of these drugs are available by prescription only, a thorough consultation with your physician is necessary. When under the care of a doctor, he or she can make sure that the medication is working for you and they can even assist you with any withdrawal symptoms should you stop taking the medicine.

The most significant concern about the use of medications for treating insomnia is that medication does not address the root cause of the problem, and instead becomes a crutch to lean on rather than a cure. Just as you would not leave a cast on a broken bone indefinitely because it would cause the muscle to atrophy, sleep medication should be seen as a temporary aid for sleep problems and not a long term one.

Other concerns about the use of over-the-counter and prescription sleep medications include:

- development of drug tolerance and/or dependence
- reduced effectiveness of drug
- physical side effects
- interactions with other drugs or chemicals in the body
- withdrawal symptoms
- rebound insomnia

There are obviously some natural ways to help you sleep. Let's take a look at those non-prescription methods of sleep inducement.

Chapter 9

NATURAL CURES FOR INSOMNIA

Herbal remedies such as valerian root, kava kava, chamomile, lemon balm, St. John's Wort, and passionflower have been used for insomnia for many years. However, the effectiveness and safety of these products has not been documented. Studies done on herbal remedies are often hard to interpret because they are inconsistent with standards of studies for regulated substances like prescription drugs.

According to the National Institute of Health, although the results of some studies suggest that valerian may be useful for insomnia and other sleep disorders, results of other studies do not. Interpretation of these studies is complicated by the fact the studies had small sample sizes, used different amounts and sources of valerian, measured different outcomes, or did not consider potential bias resulting from high participant withdrawal rates. Overall, the evidence from these trials for the sleep-promoting effects of valerian is inconclusive.

Many people with insomnia choose herbal remedies for treating their insomnia. Some such as chamomile tea or lemon balm are harmless for most people. It should be strongly noted that a being labeled "natural" is neither equal to being safe or necessarily to even being natural. Herbal remedies are not regulated. Some even contain conventional medicines.

Melatonin

You may want to give melatonin a try. Melatonin is the best studied natural remedy for insomnia, although in the US it remains unregulated. Evidence on its effects remains unclear. Some studies have found that although many people fall asleep faster with melatonin, it has no effect on total sleep time or daytime feeling of sleepiness or fatigue. Some studies suggest that it may help specific individuals, such as the following:

- Elderly people. It may help certain older people with insomnia, such as those with evidence of low melatonin levels and those dependent on prescription sleeping medications. It is not clear, however, how significant the benefits are.
- People without sight. A 2000 study reported that melatonin can help people without sight retrain their circadian cycle so that they can sleep at regular hours. The best



dosages and timing, however, need to be clarified. High doses (10 mg) may be needed to start with, but can probably be reduced over time.

- Travelers and Jet Lag. Some studies have reported that melatonin may help prevent jet lag in some travelers. The optimal dosages or timing for preventing jet lag are still unclear, however.
- During withdrawal from prescription sleep medication. Melatonin may help people who are dependent on sleeping medications withdraw from these agents and maintain good quality sleep.
- People with delayed sleep syndrome. It might be somewhat helpful for people with who fall asleep very late at night or in early morning hours but then they sleep normally.

One difficulty in assessing study results is that there are no consistent standards on melatonin dosages or usage. Some studies suggest that 0.3 mg may be the most effective dosage in many people with insomnia. In fact, higher doses (3 to 5 mg) may keep some people awake. (A study on blind people, however, suggested that much higher doses may be needed for this group, at least at the beginning of treatment.)

High doses of melatonin have been associated with the following adverse events:

- Mental impairment.
- Drowsiness.
- Severe headaches.
- Nightmares.
- It may increase the risk for seizures in children with existing neurological disorders.
- Interactions with other drugs are not completely known.

It should be stressed that melatonin is currently classified as a dietary supplement and not as a drug, so its quality and effectiveness is uncontrolled in the US. (The United States is the only developed nation that does not regulate this agent.) Melatonin is a powerful hormone that can have major effects, many still unknown, on all parts of the body. The bottom line is that at this time, people who take melatonin are experimenting on themselves.

Other Natural Insomnia Cures

Keep in mind that alternative or natural remedies are not regulated and their quality is not publicly controlled. In addition, any substance that can affect the body's chemistry can, like any drug, produce side effects that may be harmful.

Even if studies report positive benefits from herbal remedies, the compounds used in such studies are, in most cases, not what are being marketed to the public. There have been a number of reported cases of serious and even lethal side effects from herbal products. In addition, some so-called natural remedies were found to contain standard prescription medication.

The following warnings are of particular importance for people with insomnia:

- **Chinese Herbal Remedies.** Studies suggest that up to 30% of herbal patent remedies imported from China having been laced with potent pharmaceuticals such as phenacetin and steroids. And one study reported a significant percentage of such remedies containing toxic metals.

For example, the herbal remedy Sleeping Buddha was recalled in 1998 because it actually contains a benzodiazepine, the major ingredient in many prescription sleeping pills, and also appeared to increase the risk for birth defects in pregnant women. Reports of a few cases of acute hepatitis have occurred from Jin Bu Huan, a Chinese herbal remedy sold as treatment for pain and insomnia.

- **Valerian root.** A number of studies suggest that valerian may be helpful for insomnia. Side effects include vivid dreams. It should be noted that high doses of valerian can cause blurred vision, excitability, and changes in heart rhythm.
- **Kava kava.** Kava kava has sedative actions and studies have reported that it helps improve stress-induced insomnia. The most common side effect reported is dizziness. It should be noted, however, that kava kava has been associated with liver failure in some cases.

It also interacts dangerously with certain medications; including alprazolam, an anti-anxiety drug. And it increases the potency of certain other drugs, including other sleep medications, alcohol, and antidepressants.



- **Tryptophan and 5-L-5-hydroxytryptophan (HTP).** Tryptophan is an amino acid used in the formation of the neurotransmitter serotonin, which is known to promote well-being and has been associated with healthy sleep. L-tryptophan was marketed for insomnia and other disorders but was withdrawn from the market after a contaminated batch caused a rare and even fatal disorder called eosinophilia myalgia syndrome.

5-htp, a byproduct of tryptophan, is still available as a supplement. There have been reports that some brands contain a substance called Peak X, which some evidence suggests may be harmful. To date, no serious adverse effects have been reported and reliable brands are available. Evidence that 5-HTP alleviates insomnia is scant.

You don't have to use drugs – whether natural or chemical to help you beat insomnia. There are some great behavior therapies that can be implemented to help you get to sleep.

Chapter 10

SLEEP HYGIENE

Sleep hygiene refers to sleep habits and conditions which promote sleep as opposed to habits such as drinking alcohol or caffeine in the evening, which make it hard for you to unwind and get to sleep.

Sleep hygiene should be your first line of attack against insomnia, and it is often used in conjunction with stimulus control and cognitive behavior restructuring (see below). Review your habits and make some changes in your routine to see if behavioral and environmental changes improve your sleep.

Here are some tips for effective sleep hygiene habits:

- Establish a regular time for going to bed and getting up in the morning and stick to it even on weekends and during vacations.
- Use the bed for sleep and sexual relations only, not for reading, watching television, or working; excessive time in bed seems to fragment sleep.
- Avoid naps, especially in the evening.
- Exercise before dinner. A low point in energy occurs a few hours after exercise; sleep will then come more easily. Exercising close to bedtime, however, may increase alertness.
- Take a hot bath about an hour and a half to two hours before bedtime. This alters the body's core temperature rhythm and helps people fall asleep more easily and more continuously. (Taking a bath shortly before bed increases alertness.)
- Do something relaxing in the half-hour before bedtime. Reading, meditation, and a leisurely walk are all appropriate activities.
- Keep the bedroom relatively cool and well ventilated.



- Do not look at the clock. Obsessing over time will just make it more difficult to sleep.
- Eat light meals and schedule dinner four to five hours before bedtime. A light snack before bedtime can help sleep, but a large meal may have the opposite effect.
- Spend a half hour in the sun each day. The best time is early in the day. (Take precautions against overexposure to sunlight by wearing protective clothing and sunscreen.)
- Avoid fluids just before bedtime so that sleep is not disturbed by the need to urinate.
- Avoid caffeine or other stimulants in the hours before sleep. A general recommendation is not to consume anything that might hinder your sleep 4-6 hours before your anticipated bedtime.
- Don't drink alcohol before going to bed.
- If one is still awake after 15 or 20 minutes go into another room, read or do a quiet activity using dim lighting until feeling very sleepy. (Don't watch television or use bright lights.)
- Give yourself a quiet time right before bed. One or two hours before you retire, take a few moments to spend quietly relaxing and meditating.
- Your bedroom should be exclusively for sleeping. Well, maybe one other activity, but avoid eating, reading, smoking, drinking or watching television in bed. The bedroom should be a peaceful place and when it is,
- If distracted by a sleeping bed partner, moving to the couch or a spare bed for a couple of nights might be helpful.
- If you can't sleep -- don't stay in bed. Get out of bed, move to another room, and return to your bed when you are tired.



Sleep hygiene is just one of the behavioral techniques you can use to help with your insomnia.

Chapter 11

STRESS MANAGEMENT AND RELAXATION

Learning to be physically and mentally relaxed before going to bed will help you fall asleep more quickly. Additionally, many relaxation techniques can be put to use when you wake up in the middle of the night and need to get back to sleep.

Quieting your mind and body is not something that can be done immediately, so you should try to start winding down at least an hour before bed. Some people find that reading a book, taking a bath, playing solitaire or working a crossword puzzle are good ways to slow down from activity of the day.

You may want to try one or more of the following activities:

- **Progressive Muscle Relaxation (PMR)** – PMR is a set of exercises you can use to reduce anxiety and stress at bedtime. PMR is a two-step process where you first tense certain muscle groups and then relax them. As you go through the process, you should be focused on actively tensing and then relaxing, helping to relax your mind as well as your body.



The procedure takes some time to learn, but after learning it, you can practice a shorter version of the exercises. When practicing PMR to help with sleep, you should plan to fall asleep before finishing all of the exercises.

- **Diaphragmatic breathing** – Learning to breathe slowly and deeply from your belly or diaphragm is a good way to slow down. To practice belly breathing, put a hand on your stomach and take slow breaths, letting your stomach expand as you breathe in. As you breathe out, relax your chest and shoulders. Concentrate on your breathing as you do it to encourage your mind away from stressful or anxious thoughts.

- **Visual imagery relaxation –**

Practicing visual imagery means choosing peaceful, soothing thoughts to focus on which calm you and allow you to stop thinking of your to do list. Everyone's peaceful situation is different, and you can choose to think about things that personally soothe you – a walk in the mountains, canoeing on a lake, swimming, petting your dog, etc. As long as the image doesn't excite your mind, it should work.



You might also choose to focus on something that is very repetitious as a way of relaxing. For example, if you are a skier, you might imagine going to the slopes, zipping up your jacket, putting on your gloves and hat, tightening your boots, riding the chairlift and then the smooth and rhythmic motion of sinking your poles in and turning side to side as you ski down the mountain. Slowly going over every detail of a repetitious activity can be soothing and relaxing.

- **Stress management –** If you learn to deal with stress more effectively through meditation or self-guided imagery, you should be able to fall asleep more easily. Try the following suggestions to help reduce your stress:

- Change or resolve the things causing you stress when possible.
- Accept situations you can't change.
- Keep your mind and body as relaxed as much as possible throughout the day.
- Give yourself enough time to do the things you need to do -including eating.
- Don't take on too much and avoid unrealistic demands.
- Live in the present, rather than worrying about the past or fearing the future.

- Talk to your partner if there are problems in your relationship.
 - Have some relaxing, non-competitive activities - something you do just for pleasure, for fun.
 - Give yourself some 'quiet time' each day.
 - Practice a relaxation technique or breathing exercises regularly.
- **Anger management** – Anger, anxiety and frustration can stand directly in the way of getting a good night's sleep. You may feel angry or anxious when you go to bed or you may become angry and frustrated when you can't go to sleep.

Regardless of the source of the anger, recognize that it keeps your mind occupied and your body tense, two conditions which don't encourage sleep. A few things that might help you deal with your anger or anxiety:



- Exercise daily – it will help you release excess anger and frustration.
 - Think about the cause of your anger. If there isn't anything you can do to resolve it, move on. If you can resolve it, make steps to do so.
 - Develop a method of releasing the anger by the end of the day, before you try to relax or go to sleep. For example, you might choose to write it down in your journal or talk to a spouse or friend about it. After you have processed the anger and let it out, try to move on
- **Word and imagination games** – For some, playing mental games at bedtime may not be helpful at all. But others find that engaging their mind in something unimportant can be a good way to unwind and shift attention away from actively trying to fall asleep. Try playing some mental games:
 - Spell long words and sentences backwards.

- Think of a poem or song and then count how many a's or b's there are in it.
- Work your way through the alphabet thinking of a four-letter word beginning with each letter
- Repeat long pieces of poetry or prose.
- Recall in great detail a favorite painting, a piece of music or place.

Self-Help Strategies

Self-help strategies are usually effective and aren't addictive. Using these alternatives to over-the-counter or prescription medication are less expensive than pharmacological treatment, have fewer side effects, and can provide longer lasting relief particularly when behavioral treatments are used as well.

Consider, too, altering your sleep environment. Put a board under your mattress if it sags or try putting your bed in a different position. Make sure your bedding is clean and that you are warm enough but not too hot.



If light troubles you, use thicker curtains or put a scarf or sleep mask over your eyes. If you feel more comfortable with a little light, leave the curtains open a little or use a night light.

A common cause of sleeplessness is noise. Use earplugs if it's noise you can't do anything about. Change your attitude toward the noise, too. People can sleep through high levels of noise. It's not so much the level of the noise as it is how you feel about it that keeps you awake.

Use relaxation exercises to calm yourself and take your mind off of it. Take some diplomatic action to combat the noise that's disrupting your sleep. If your family is being noisy while you're trying to sleep, talk to them calmly about your need to sleep and ask them to please curtail the noise during bedtime hours.

Keep a radio or tape player by your bed and use it to mask other noise. Try playing a relaxation tape or CD such as nature noises that can put you in a calmer mood and make you better able to cope with distractions.

You may want to look into hypnosis for your sleeping problems. Self-hypnosis is especially helpful. This can be done online at many different sites that will allow you to download hypnotic sessions tailored to your specific problem. They are extremely relaxing and definitely worth the small investment!

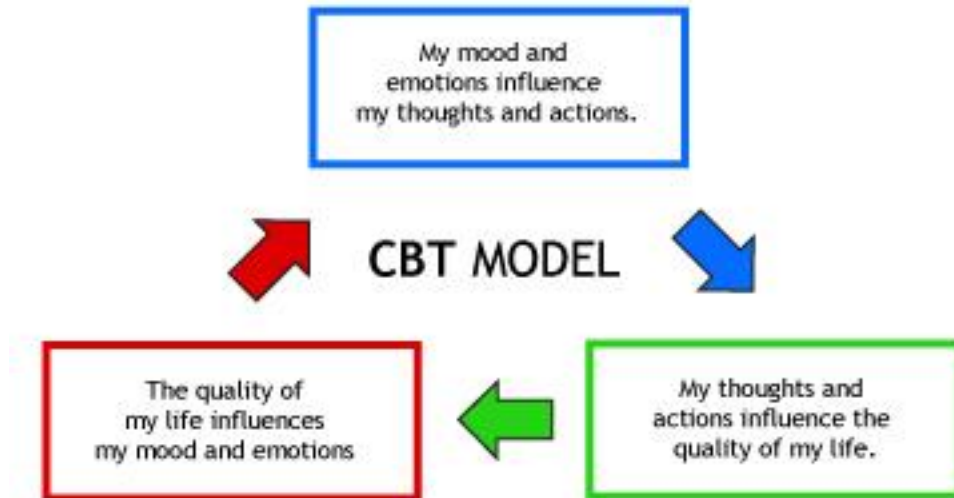
Research suggests that people who suffer from insomnia tend to be less confident and have lower self esteem than others. Therefore anything that you can do to increase your confidence or improve your self esteem is likely to help you sleep better. Once again there are very many self-help books available, or you may prefer to consult a counselor.

Another way to alleviate your insomnia is to practice cognitive behavioral therapy. This works with animals and we are, after all, animals too.

Chapter 12

COGNITIVE BEHAVIOR THERAPY

Cognitive-behavioral therapy (CBT) tries to reduce a person's misconceptions about sleep, as well as teach more positive sleep behaviors. The therapy consists of talking with a therapist (alone or with a group) to address your beliefs, assumptions and behaviors regarding sleep, and is often used in conjunction with stimulus control, sleep restriction and good sleep hygiene. Several studies have shown that CBT is an effective way of treating insomnia and that the therapy can reduce the number of long term medical issues associated with insomnia.



Cognitive behavioral therapy addresses a person's beliefs about sleep and helps replace negative or unhelpful behaviors with positive ones. The significance of one's thinking about sleep is often underestimated. Sleep problems which start as isolated incidents can become chronic because of mental hang-ups.

How we think about sleep can play an important role in how we deal with sleep difficulties. For this reason, an essential part of your sleep treatment involves identifying your thoughts about sleep that tend to make sleeping more difficult and replacing these thoughts with more helpful thinking.

One technique for examining your thinking is to treat your thoughts as scientific hypotheses or ideas. You may have had certain beliefs about your sleep for a long time. At this time you are being asked to consider alternative beliefs and determine which of these beliefs is best supported by the information available to you.

As you pay attention to your thinking about sleep and consider alternatives, you will probably notice two issues to address:

1. The more important it is to get a good night's sleep, the less you sleep. Believing that a poor night's sleep is a disaster only generates more anxiety and worry about your sleep. Challenge this thinking and consider alternative thoughts that reduce the importance of sleeping on the rest of your life (i.e. "It's no big deal", "I'll be a little tired and cranky tomorrow but nothing I can't handle.").
2. The more you try to control your sleep, the less you sleep. Sleep is a natural body response. Telling yourself that you must sleep and trying to force yourself to sleep only puts pressure on you and makes your sleep worse. Focusing on what you can control (sleep habits, schedule, when you are in or out of bed) and letting go of what you can not control will allow falling asleep and staying asleep to happen naturally.

Now that you've become aware of the thoughts that make your sleep worse and have considered alternative ways of thinking, the next step is to practice these new thoughts. This challenging of new thoughts replacing old thoughts will take some effort because our thoughts are typically automatic and we are not accustomed to deliberately noticing them.

Scheduling a time each day to examine the ways you think about your sleeping will be helpful in getting you to notice and challenge any maladaptive thought patterns. It is important to do this on a regular basis, as it can be easy to fall into old thought habits if you are not actively monitoring your thoughts.

Like any new skill, it is important to practice it. Keep a diary of your sleep-related thoughts and your ideas on how to think differently. Once you have become accustomed to examining your thoughts, you will find that this is an excellent skill that will prove useful for helping you to approach your sleeping difficulties differently as well as for learning a healthier approach to other life problems as well.

We strongly advocate progressive muscle relaxation (PMR) not only to combat insomnia, but to combat stress as well. Learn more about PMR in the next chapter.

Chapter 13

PROGRESSIVE MUSCLE RELAXATION

One of the most simple and easily learned techniques for relaxation is Progressive Muscle Relaxation (PMR), a widely-used procedure today that was originally developed in 1939.

The PMR procedure teaches you to relax your muscles through a two-step process. First you deliberately apply tension to certain muscle groups, and then you stop the tension and turn your attention to noticing how the muscles relax as the tension flows away.

Through repetitive practice you quickly learn to recognize—and distinguish—the associated feelings of a tensed muscle and a completely relaxed muscle. With this simple knowledge, you can then induce physical muscular relaxation at the first signs of the tension that accompanies anxiety. And with physical relaxation comes mental calmness—in any situation.

Before practicing PMR, you should consult with your physician if you have a history of serious injuries, muscle spasms, or back problems, because the deliberate muscle tensing of the PMR procedure could exacerbate any of these pre-existing conditions. If you continue with this procedure against a doctor's advice, you do so at your own risk.

There are two steps in the self-administered Progressive Muscle Relaxation procedure: (a) deliberately tensing muscle groups, and (b) releasing the induced tension. This two-step process will be described after you are introduced to the muscle groups.



After learning the full PMR procedure as follows, you will spend about 10 minutes a day maintaining your proficiency by practicing a shortened form of the procedure. As you practice the short procedure, you will be simultaneously learning cue-controlled relaxation.

Ultimately, you will acquire something that will probably become an indispensable part of your daily life, and the initial drudgery of practice will be long-forgotten.

It is recommended that you practice full PMR twice a day for about a week before moving on to the shortened form (below). Of course, the time needed to master the full PMR procedure varies from person to person.

Here are some suggestions for practice:

- Always practice full PMR in a quiet place, alone, with no distractions like television or phones. We don't suggest even using background music.
- Remove your shoes and wear loose clothing
- Don't eat, smoke or drink right before practicing PMR. It's best to practice before meals rather than after to avoid problems with digestion.
- Never practice this while under the influence of any intoxicants.
- Sit in a comfortable chair or lying down in bed.
- Plan on falling asleep before the cycle is complete if you do this in bed
- If you are doing PMR just to relax instead of falling asleep, after you are done, relax with your eyes closed for a few seconds and then get up slowly. If you stand up too quickly, you could experience a sudden drop in blood pressure which could cause you to feel faint. Some people like to count backwards from 5 to 1 timed to slow, deep breathing and then say "Eyes open, supremely calm, fully alert."

You will be working with most all the major muscle groups in your body, but for convenience you will make a systematic progression from your feet upwards. Here is the most popular recommended sequence:

- Right foot
- Right lower leg and foot
- Entire right leg
- Left foot
- Left lower leg and foot
- Entire left leg
- Right hand

- Right forearm and hand
- Entire right arm
- Left hand
- Left forearm and hand
- Entire left arm
- Abdomen
- Chest
- Neck and shoulders
- Face

If you're left handed, begin with your left side.

Tension-Relaxation Procedure

Here is how to perform the tension-relaxation procedure.

Step One: Tension. The process of applying tension to a muscle is essentially the same regardless of which muscle group you are using. First, focus your mind on the muscle group; for example, your right hand. Then inhale and simply squeeze the muscles as hard as you can for about 8 seconds; in the example, this would involve making a tight fist with your hand.

Beginners usually make the mistake of allowing muscles other than the intended group to tense as well; in the example, this would be tensing muscles in your right arm and shoulder, not just in your right hand. With practice you will learn to make very fine discriminations among muscles; for the moment just do the best you can.

It can be very frustrating for a beginner to try to experience a fine degree of muscle separation. Because neglect of the body is an almost universal cultural attitude, it is usually very difficult to begin learning how to take responsibility for your body's mechanics.



Take heart and realize that learning fine muscle distinction is in and of itself a major part of the overall PMR learning process. PMR isn't just about tension and relaxation – it's also about muscle discernment.

Relax and realize that no part of the body is an isolated unit. The muscles of the hand, for example, do have connections in the forearm, so when you tense your hand, there will still be some small tension occurring in the forearm.

When PMR asks that the hand be tensed without tensing the arm, it is really speaking to the beginner who, out of unfamiliarity with the body's muscles will unthinkingly tense everything in the whole arm. If you accept the fact that you are in the beginner phase and not inept at practicing the procedure, then you will begin to patiently discover the fine muscles with practice.

It's important to really feel the tension. Done properly, the tension procedure will cause the muscles to start to shake, and you will feel some pain.

Be careful not to hurt yourself, as compared to feeling mild pain. Contracting the muscles in your feet and your back, especially, can cause serious problems if not done carefully; i.e., gently but deliberately.

Step Two: Releasing the Tension. This is the best part because it is actually pleasurable. After the 8 seconds, just quickly and suddenly let go. Let all the tightness and pain flow out of the muscles as you simultaneously exhale.



This would be imagining tightness and pain flowing out of your hand through your fingertips as you exhale. Feel the muscles relax and become loose and limp, tension flowing away like water out of a faucet. Focus on and notice the difference between tension and relaxation.

The point here is to really focus on the change that occurs as the tension is let go. Do this very deliberately, because you are trying to learn to make some very subtle distinctions between muscular tension and muscular relaxation.

Stay relaxed for about 15 seconds and then repeat the tension-relaxation cycle. You'll probably notice more sensations the second time.

Once you understand the muscle groups and the tension-relaxation procedure, then you are ready to begin the full PMR training. Simply follow the list of muscle groups in the sequence

given and work through your entire body. Practice twice a day for a week. Spend extra time, if necessary, until you can achieve a deep sense of physical relaxation; then you can move on to the Shortened PMR schedule.

In the shortened form of PMR, you will work with summary groups of muscles rather than individual muscle groups, and begin to use cue-controlled relaxation.

The four summary muscle groups are:

- Lower limbs
- Abdomen and chest
- Arms, shoulders, and neck
- Face

Instead of working with just one specific part of your body at a time, simply focus on the complete group. In Group 1, for example, focus on both legs and feet all at once.

Cue-controlled relaxation: Use the same tension-relaxation procedure as full PMR, but work with the summary groups of muscles. In addition, focus on your breathing during both tension and relaxation.

Inhale slowly as you apply and hold the tension. Then, when you let the tension go and exhale, say a cue word to yourself (below). This will help you to associate the cue word with a state of relaxation, so that eventually the cue word alone will produce a relaxed state.

Many people find that cue-controlled relaxation does not have to depend on only one word; it may actually be more helpful in some situations to use a particular phrase. Some suggestions for cue words/phrases include:

- Relax
- Let it go
- It's OK
- Stay calm

- All things are passing
- Trust in God

Initially, you should practice the shortened form of PMR under the same conditions as you practiced full PMR. After about a week of twice-daily practice you will then have enough proficiency to practice it under other conditions and with distractions. Or you might want to move on to the final process of Deep Muscle Relaxation.

Once you have learned PMR and are familiar with the feeling of muscle relaxation, you can then induce relaxation without even bothering with the tension-relaxation process.

All you need to do is use your imagination to think of and then relax the various muscle groups using your cue word(s). Usually this is done by starting at the top of your head and then working down through your body, as if relaxation were being poured over your head and flowing down over all of your body. This process is called Deep Muscle Relaxation.

And, anywhere, anytime, you can simply perform a quick “body scan” to recognize where in your body you might be holding muscle tension and then, using imagery and your cue word/phrase, let it go.

There are other approaches toward combating insomnia that can work well too.

Chapter 14

Other Alternatives

Other techniques that can help you improve your sleep habits are stimulus control, paradoxical intention and sleep restriction. All three techniques have to do with changing your habits and reframing your current way of thinking about sleep. As you sleep better, you will create positive associations with sleep based on your new practices.

Stimulus Control

Stimulus control therapy derives from the idea that a person with chronic insomnia associates bedtime and the bedroom with not being able to sleep. The technique limits the amount of time spent in the bedroom for non-sleep activities to retrain the brain to associate bedtime and the bed/bedroom with successful sleep attempts rather than sleeplessness. The general guidelines of stimulus control are:



- Go to bed only when you are sleepy.
- Don't read, watch television, eat or do other non-sleep things in bed.
- If you are not asleep within 15 minutes, leave the bedroom and don't return until you are sleepy.
- If you are awake at night for more than 15 minutes, get out of bed.
- Have a consistent wake time every day, regardless of how much sleep you got.
- Avoid naps.

Paradoxical Intention

Paradoxical intention is a psychological approach that is based on doing the opposite of what you want or fear and taking it to extreme. Some people who experience insomnia may continue to experience insomnia because they fear another sleepless night or they fear the thoughts and worries that accompany going to bed, and their fear keeps them awake.

Paradoxical intention focuses on confronting, and hopefully, eliminating the fear so that it stops getting in the way of sleep. This approach is used for other fears as well. Rather than trying, unsuccessfully, to go to sleep night after night, try to stay awake and do something instead. Turning your attention to something else removes the fear of not being able to sleep and may allow you to relax and eventually go to bed.

Sleep Restriction

Sleep restriction is based on the idea that people require different amounts of sleep, and that often, a person with insomnia stays in bed thinking that they will get more sleep, when staying in bed really just increases frustration and sleep difficulty. Sleep restriction therapy reduces the amount of non-sleeping time a person with insomnia spends in bed.

To practice sleep restriction, you determine your average total sleep time by keeping a log of your sleep habits for two weeks. If you usually sleep 6 hours per night, but spend 8 hours a night in bed (tossing and turning, watching TV, reading, staring at the ceiling for the other 2 hours), sleep restriction therapy will only allow to spend 6 or 6 1/2 hours in bed at first.

In the beginning, you might not sleep all of the time, but gradually, the time spent sleeping should increase. If you continue to have trouble sleeping, the time allowed in bed is further restricted to encourage sleep when you are in bed. The overall time spent in bed is adjusted as it becomes clear how much sleep you need.

Light Therapy

The circadian rhythm is more a function of darkness and light rather than actual time of day. Bright light can discourage drowsiness, and darkness can cause sleepiness, day or night. Light therapy is a treatment used for people who suffer from circadian rhythm sleep disorders. Your body has an internal clock that tells it when it is time to be asleep and when it is time to be awake.



This clock is located in the brain just above an area where the nerves travel to the eyes. This area is called the SCN. Your clock controls the “circadian rhythms” in your body. These rhythms include body temperature, alertness and the daily cycle of many hormones.

The word “circadian” means to occur in a cycle of about 24 hours. Circadian rhythms make you feel sleepy or alert at regular times every day. Some people have a circadian rhythm sleep disorder. This causes their natural sleep time to overlap with regular awake activities such as work or school.

Among other factors, your clock is “set” by your exposure to bright light such as sunlight. Exposure to bright light or “light therapy” is one method used to treat people with a circadian rhythm sleep disorder.

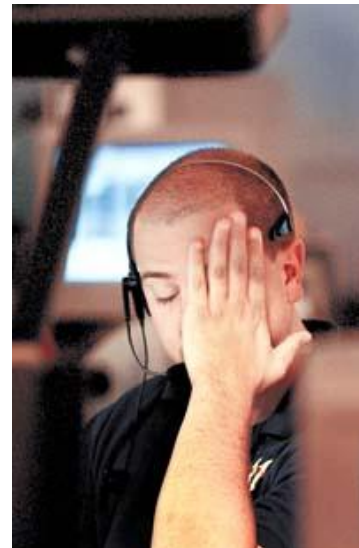
The goal for treating patients who have circadian rhythm problems is to combine a healthy sleep pattern with an internal clock that is set at the right time. This will allow them to enjoy the benefits of good sleep.

Light therapy can help someone “re-set” a clock that is off. Regular sleep patterns help to keep the clock set at the new time. Light therapy is only part of a treatment plan that should be guided by a doctor who is familiar with sleep disorders.

The use of a special light box may be helpful.

The procedure is noninvasive and simple. The patient sits a few feet away from a box-like device that emits very bright fluorescent light (over 4,000 lux) for about 30 minutes every day. The following people might benefit from light therapy in specific ways.

- Shift workers. Light therapy should be maximized during hours they are at work and minimized when they need to sleep.
- Frequent travelers. Light therapy may be useful for adjusting to new time zones and reducing jet lag.
- Nursing home patients.
- People with delayed sleep-phase syndrome. (These people have a natural tendency to fall asleep very late at night or in early morning hours, but then sleep normally.)



Everyone should check with their physician before using light therapy. The following people should avoid it or use it only under a physician's direction:

- Anyone with eyes or skin that is highly sensitive to light.
- Anyone taking medications that increase the risk for photosensitivity.
- People with bipolar disorder.



Timing of the therapy depends on the type of insomnia or sleep schedule of the individual. For example, in people who cannot get to sleep at night, light therapy in the morning and restricting bright light at night may be helpful. People who wake up early in the morning may benefit from light therapy performed in the evening, although a 2002 study reported that it had no effect in this group. Some light boxes have dawn/dusk simulators that help

determine the correct brightness.

Patients typically receive bright light therapy at home, with the use of a light box. The light box emits a standard dosage of 5,000 to 10,000 lux (a measure of illumination) of white light while you sit in front of the light, at a specified distance, for approximately 30-60 minutes after waking in the morning. Light therapy should always be used within the proper limits for light intensity and duration of exposure.

Bright light therapy has not been known to show any major side effects. Some patients have reported minor side effects including: eye irritation and dryness, headache, nausea, and dryness of skin. To reduce the chance of experiencing these minor side effects, it is recommended that you begin light therapy very slowly and consult your doctor before use.

Chapter 15

Sleep Tips

The following suggestions are in general and can help you have a good night's sleep.

- **Keep a regular schedule.** Try to go to bed and wake up at the same time everyday, even on the weekends. Keeping a regular schedule will help your body expect sleep at the same time each day. Don't oversleep to make up for a poor night's sleep – doing that for even a couple of days can reset your body clock and make it hard for you to get to sleep at night.
- **Incorporate bedtime rituals.** Listening to soft music, sipping a cup of herbal tea, etc., cues your body that it's time to slow down and begin to prepare for sleep.
- **Relax for a while before going to bed.** Spending quiet time can make falling asleep easier. This may include meditation, relaxation and/or breathing exercises, or taking a warm bath. Try listening to recorded relaxation or guided imagery programs.
- **Don't eat a large, heavy meal before bed.** This can cause indigestion and interfere with your normal sleep cycle. Drinking too much fluid before bed can cause you to get up to urinate. Try to eat your dinner at least two hours before bedtime.
- **Bedtime snacks can help.** An amino acid called tryptophan, found in milk, turkey, and peanuts, helps the brain produce serotonin, a chemical that helps you relax. Try drinking warm milk or eat a slice of toast with peanut butter or a bowl of cereal before bedtime. Plus, the warmth may temporarily increase your body temperature and the subsequent drop may hasten sleep.
- **Jot down all of your concerns and worries.** Anxiety excites the nervous system, so your brain sends messages to the adrenal glands, making you more alert. Write down your worries and possible solutions before you go to bed, so you don't need to ruminate in the middle of the night. A journal or "to do" list may be very helpful in letting you put away these concerns until the next day when you are fresh.
- **Go to sleep when you are sleepy.** When you feel tired, go to bed.
- **Consider avoiding "over-the-counter" sleep aids,** and make sure that your prescribed medications do not cause insomnia. There is little evidence that supplements and other



over-the-counter "sleep aids" are effective. In some cases, there are safety concerns. Antihistamine sleep aids, in particular, have a long duration of action and can cause daytime drowsiness. Always talk to your doctor or healthcare practitioner about your concerns!

- **Get into a calming bedtime routine that you start 30-60 minutes before your desired bedtime.** Avoid watching tense or scary movies, or other highly stimulating activities. Find some activities that you find calming, and that take your mind off of things that are bothering you. This could include using a relaxation CD, reading, taking a hot bath, having a warm drink (such as decaf tea or milk), or listening to music. Avoid using alcohol to feel drowsy — it tends to contribute to waking up in the middle of the night.
- **Earlier in the evening, before you go to bed, make a list of things you will need to do tomorrow or in the near future.** Once you have made the list, put it away and focus on relaxing. You can start working on your list again tomorrow, and you will have more energy to tackle your list if you get some sleep. When you wake in the middle of the night, you CAN get back to sleep.
- **Do visualization.** Focus all your attention on your toes or visualize walking down an endless stairwell. Thinking about repetitive or mindless things will help your brain to shut down and adjust to sleep.
- **Get out of bed if unable to sleep.** Don't lie in bed awake. Go into another room and do something relaxing until you feel sleepy. Worrying about falling asleep actually keeps many people awake.
- **Don't do anything stimulating.** Don't read anything job related or watch a stimulating TV program (commercials and news shows tend to be alerting). Don't expose yourself to bright light. The light gives cues to your brain that it is time to wake up.
- **Get up and eat some turkey.** Turkey contains tryptophan, a major building block for making serotonin, a neurotransmitter, which sends messages between nerve cells and causes feelings of sleepiness. Note that L-tryptophan doesn't act on the brain unless you eat it on an empty stomach with no protein present, so keep some turkey in the refrigerator for 3am.
- **Consider changing your bedtime.** If you are experiencing sleeplessness or insomnia consistently, think about going to bed later so that the time you spend in bed is spent sleeping. If you are only getting five hours of sleep at night, figure out what time you need to get up and subtract five hours (for example, if you want to get up at 6:00 am, go to bed at 1:00 am).

This may seem counterproductive and, at first, you may be depriving yourself of some sleep, but it can help train your body to sleep consistently while in bed. When you are spending all of your time in bed sleeping, you can gradually sleep more, by adding 15 minutes at a time.



Chapter 16

Sleep Disorders in Children

Many children at some point in their young lives will have problems with sleeping. There's nothing more frustrating for a parent than a child who won't sleep or sleeps irregularly. Is there anything you can do? You bet!

The most common sleep problem with infants, toddlers, and preschoolers is sleep-onset association disorder sometimes accompanied by issues of parent and child sleeping together.

Children who have this type of disorder just don't sleep. Parents often describe a child who insists on being nursed to sleep or on having a parent lie alongside until he or she falls asleep. Parents are often unaware that their well-meaning habits have created the difficulty.

The problem occurs when the child awakens fully if the parent or other condition he or she has learned to associate with falling asleep is not present. The child has learned to rely on the parent to fall asleep and may lack the self-soothing skills necessary to settle back into sleep independently. Sleep-onset association disorder can lead to frequent nightly arousals for both child and parent.



Management of sleep-onset association disorder involves two critical elements. First, you must gain an understanding of your child's "brain clock" or typical time of sleep onset and morning awakening. It might be helpful for you to keep a sleep log to accomplish this.

Then, you must undertake a period of training the child to shift from wake to sleep independently. Making this transition requires that parents put the child to bed when he or she is drowsy but still awake--in other words, at a time that coincides with natural sleep onset rather than at an arbitrary hour they have chosen as bedtime.

Even when timing is optimal, most children protest when their bedtime routine is changed. Parents vary in their ability or willingness to allow their child to cry for brief intervals during this period of training. Simply allowing infants to cry themselves to sleep is unnecessary and potentially harmful, particularly in babies with daytime symptoms of separation anxiety.

Delayed Intervention Method

The delayed-intervention method works in children older than ten months. This method gradually increases the time parents remain away from a crying child at bedtime--from several seconds to 2 minutes on the first night depending on the child and parent comfort level and up to 5 minutes on subsequent nights. When they return to the room after each interval away, parents are advised to reassure the child over the crib rail or at their bedside, without picking him or her up, and without turning on the light.



Talking in a slow, quiet voice to a child who is distressed or angry can help calm both the parent and the child. After comforting the baby for a minute or two with endearments (e.g., "I am right here with you, you are okay, sleepy baby, slow down"), the parent may need to again step out of the room while the child is still crying. Many parents find looking at a watch with a second hand during these intervals helpful, because listening to their baby cry for just 1 minute feels like an eternity to many parents.

The goals are to offer nurturance, comfort, and safety; to enhance the baby's self-soothing skills; and to set a clear, consistent limit regarding sleep location, assuming the parents choose not to have the child sleep with them.

Causes of Sleep Disorders in Children

For many cultures around the globe and for many families in the United States, parents sharing their bed with their infants and children are the norm and a strongly felt personal preference. This is a sound option when both parents are agreeable to it and commonsense safety precautions are observed. Whatever the sleep location, supine sleep positioning is recommended in babies.

Nighttime snacks and drinks, with the exception of water, should be avoided, because these can exacerbate nocturnal arousals from a physiologic standpoint and negatively affect dental health.

During the middle-childhood years, short sleep requirement, sleep-onset anxiety, and obstructive sleep apnea are commonly encountered problems. In these cases, making a sleep chart is very helpful both for parent and doctors if the problem becomes persistent.

When dealing with sleep-onset insomnia caused by anxiety, physicians will ask about daytime complaints, fears, or worries, which may suggest a more pervasive anxiety problem warranting referral to a children's mental health professional.

Exposure to frightening media events and a history of stressful events such as a death in the family or the arrival of a new sibling should be explored. More severe stressors, such as enduring sexual abuse or witnessing family violence, are considerations in some cases.

A simple but common cause of sleep-onset insomnia in children is rumination on issues of the day at bedtime. This problem can often be settled with a small amount of extra attention and conversation with a parent at bedtime.

Anxious children are best treated with a combination of therapies, including a cognitive-behavioral approach that empowers them to generate solutions and gain mastery over their worries. For example, the physician might say to the child, "Adults sometimes feel nervous, too. Let's make a list of the things that could make you feel safe and brave and strong."



In persistent and difficult cases, a 1- to 3-month trial of the short-acting benzodiazepine alprazolam (Xanax) may be indicated, along with referral to a mental health professional.

Obstructive sleep apnea is seen in as many as 3% of preschool and school-age children. Parents often complain that the child snores nightly in all positions, perhaps worse when lying on their backs. Parents may also observe choking spells or what they refer to as breath holding or a halting pattern in the snoring.

Children may assume a position of neck hyperextension during sleep. Sleep fragmentation caused by obstructive sleep apnea may lead to daytime sleepiness, manifested as increased napping or falling asleep at school or while watching TV. Alternatively, children may show changes in daytime behavior, including hyperactivity, distractibility, and mood changes.

Common childhood causes of sleep apnea are inflammation of the tonsils or adenoids. These can usually be removed in a simple operation and give your child some relief.

Delayed Sleep-Phase Syndrome

Sleep disorders to watch for in adolescents are delayed sleep-phase syndrome - a disorder of circadian rhythm and narcolepsy.

Delayed sleep-phase syndrome is common among teenagers, although some delay in sleep phase is considered normal in this age-group. These teens often describe feeling wide awake in the late-evening hours, with a delay in sleep onset until 3 or 4 AM.



When they manage to drag themselves to school, their performance is impaired, and they may fall asleep in morning classes. Accordingly, the young person often presents with academic failure, truancy, or tardiness. Their sleep debt accumulates until the weekend, when they may sleep until early afternoon, further disturbing their circadian clock.

Changing a delayed sleep cycle is usually a challenge. It consists of setting the morning wake-up time 15 minutes earlier each successive day until the desired target is reached. This procedure is accompanied by exposure to bright natural light or use of a high-intensity (2,500-lux) light box in the morning.

Other measures that may be beneficial in resetting the brain clock are minimizing exposure to evening light, a trial of melatonin 4 to 5 hours before desired sleep onset, and a short course of sedative medication in the evening. Strict adherence to the new sleep schedule, even on weekends and holidays, is usually necessary to prevent relapse to previous patterns.

Chapter 17

CONCLUSION

Insomnia is a common problem, especially with individuals who are suffering from pain or illness. Insomnia has been shown to be associated with a variety of health problems, including reduced functioning of the immune system, increased irritability, increased pain, difficulties with concentration and weight gain.

Fortunately, there are many effective treatments for insomnia. Some of the treatments rely on medications, while others involve the use of a variety of self-management techniques. Recent research has shown that self-management techniques for controlling insomnia in some cases can work even better than approaches using medications.

By paying close attention to your daily life and identifying the reasons why you are unable to sleep, you will be on the way towards a more restful night along with rejuvenating sleep. Taking some steps toward self-healing is well within your power.

If you try the self-help techniques outlined in this book and still get no relief from insomnia, go see your doctor. He or she will be able to assist you with some medications that will combat your sleep problem and get you on the road to dreamland.

If you have insomnia, all hope is not lost. You can overcome it with some personal reflection and a little work. Then you can enjoy sleeping through the night and waking feeling rested and refreshed!

As always, if you have any comments or questions on this guide, please don't hesitate to contact me at my direct email address: marc@apneatreatmentguide.com. And be sure to grab the free apnea treatment reports available on my catalog site: <http://www.ApneaTreatmentCatalog.com>.

To your good health,

A handwritten signature in blue ink that reads "Marc MacDonald". The signature is written in a cursive, flowing style.

Marc MacDonald, M.Sc.
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