



SLEEP

Red Deer Primary Care Network Sleep Program

Phone: 403 343-9100

E-mail: sleep@rdpcn.com

Website: reddeerpcn.com

Please note: this program may not be effective for people working rotational shifts or those dependent on alcohol or street drugs.

**Materials used with permission from cbtforinsomnia.com
(with some RDPCN adaptations and additions)**

SLEEP

A Five Session, Interactive CBT Program for Insomnia



Copyright, 2005-present cbtforinsomnia.com

Session 1

Understanding Insomnia



Lesson 1: Introduction to the Conquering Insomnia Program

What Is Insomnia?



Insomnia is defined as insufficient, inadequate, or poor-quality sleep due to one or more of the following reasons:

- difficulty falling asleep
- difficulty staying asleep during the night
- waking up too early in the morning
- feeling overtired and unrefreshed in the morning

According to a study conducted by the National Sleep Foundation, one third of adults suffer from insomnia every night and half experience this problem at least a few nights per week.

Why Sleeping Pills are Not the Answer

While the use of short -acting sleeping pills may temporarily improve sleep for a brief or occasional episode of insomnia, the use of sleep medicines is not recommended for the treatment of chronic insomnia for the following reasons:

- They are only moderately effective and lose their effectiveness with long-term use
- They have multiple side effects that can outweigh their benefits
- People can become dependent on the medication
- They do not treat the causes of insomnia
- The insomnia returns when the medications are discontinued

Cognitive-Behavioral Therapy for Insomnia

The good news is there is something that works well to treat insomnia. It's called Cognitive Behavioral Therapy, or CBT. CBT is based on the idea that chronic insomnia is due to learned thoughts and behaviors that can be unlearned. CBT teaches poor sleepers how to:

- Modify stressful, inaccurate thoughts about sleep

- Modify disruptive or negative sleep behaviors
- Improve relaxation skills
- Improve lifestyle practices that affect sleep

A significant amount of research now suggests that CBT is more effective than sleeping pills for insomnia:

- In all three studies (two of which were funded by the National Institutes of Health) that directly compared CBT to sleeping pills, CBT was more effective
- 75% of people with insomnia experience clinically significant improvement after CBT without the side effects of sleeping pills
- Unlike sleeping pills, the improvements from CBT are maintained long after treatment is terminated
- As a result of these findings, CBT is now recommended as the preferred first line treatment for chronic insomnia by the National Institutes of Health; in reviews in major scientific journals such as the New England Journal of Medicine and the Lancet; and, by Consumer Reports

CBT achieves these results because it is based on a simple yet powerful concept: insomnia is caused by learned thoughts and behaviors that can be unlearned, or changed. The Conquering Insomnia program will show you how to overcome your insomnia with CBT.

Conquering Insomnia Program: A Proven Solution

The Conquering Insomnia Program:

- Is the same program that has been developed and tested at Harvard Medical School and the University of Massachusetts Medical School over the past 20 years with over ten thousand patients.
- Is the same program tested in a study conducted at Harvard Medical School that was funded by the National Institutes of Health. This study, which was published in the Archives of Internal Medicine, directly compared the same CBT intervention used in this program to Ambien, the most frequently prescribed sleeping pill worldwide. The study showed that this CBT program was more effective than Ambien for insomnia.
- Is the same program described in an article published in the American Journal of Medicine showing that 90% of patients who were treated with this intervention reported improved sleep. Additionally, 90% of sleep medication users reduced or eliminated their sleep medication because of this intervention.

The five sessions of the Conquering Insomnia program are organized over a five-week period as follows:

Session 1: Basic facts about sleep; Understanding your own insomnia

Session 2: Sleep scheduling and stimulus control techniques

Session 3: Changing your thoughts and learning how to stop using sleeping pills

Session 4: Daytime relaxation techniques and stress-reducing attitudes and beliefs

Session 5: Bedtime relaxation techniques; Lifestyle practices for improving sleep

This program is designed to be a sequential five-week program. This means that you should begin with session 1, and then proceed to session 2, and so on through session 5 over a 5-week period. You should spend a week implementing the techniques learned in each session before you move on to the next session. Therefore, it will typically take you five weeks to complete the program.

Please start the program within two weeks of your Sleep information session. You will have a total of eight weeks to finish the program. **After that time, the opportunity to receive personal recommendations from the SLEEP team will be closed.**

Lesson 2: Basic Facts About Sleep



Understanding Sleep

Before you can implement CBT for insomnia, it helps to understand some basic facts about sleep. This will give you a greater sense of understanding and control over sleep and is a prerequisite to understanding the various CBT techniques you will learn in this program.

The Five Stages of Sleep

Let's begin by reviewing the five stages of sleep:

Stage 1: a drowsy, relaxed state between waking and sleeping in which respiration slows, muscles relax, and heart rate drops. Most people who are awakened from this stage will report that they were "drifting off" but were not really asleep.

Stage 2: Deeper than stage 1 but still a light stage of sleep. Insomniacs are more likely to perceive stage 2 sleep as being awake. This means that, on many nights, you may be asleep and not realize it!

Stages 3 and Stage 4, or Deep Sleep: The lowest levels of physiological activity during the 24-hour day occur in deep sleep. As a result, it is very hard to wake up from deep sleep. After deep sleep, we revert back to stage 2 for a few minutes, and then enter dream sleep.

Dream Sleep (also called REM sleep): this stage is characterized by rapid eye movements (REM), dreams, and significant physiological activity such as increased heart rate. Because REM sleep is such an active period for the brain and body, we are more likely to awaken from this sleep stage and feel more alert than deep sleep. Brain wave patterns resemble wakefulness.

Sleep Cycles

During one sleep cycle, we progress from Stage 1 to Stage 4 and then through dream sleep in about ninety minutes. Therefore, a six-hour sleeper will move through four sleep cycles during the night. We spend about 5% of the night in Stage 1, 50% in Stage 2, 20% in deep sleep, and 25% in dream sleep.

Early in the night, deep sleep periods are longer (sometimes lasting up to one hour) whereas dream periods last only a few minutes. Later in the night, deep sleep periods grow shorter and the duration of dream periods increase so that, by the final dream period of the early morning, dream sleep may persist for an hour.

As a result, we obtain most of our deep sleep during the first half of the night and most of our dream sleep during the last half of the night. And because sleep grows lighter in the second half of the night, awakenings are more prone to occur in the second half of the night.

The Functions of Sleep

Now let's review the functions of the various stages of sleep:

Deep sleep (Stages 3 & 4)

- Provides the brain and body with significant rest
- Renews physical and mental energy
- The most important stage of sleep. If we are deprived of sleep, the brain will try to recover or "make up" the lost deep sleep the next time we sleep. Furthermore, loss of deep sleep produces the greatest impairments in daytime functioning compared to the loss of other stages of sleep.

Dream sleep

- Involves processing and saving newly learned information into memory
- Like deep sleep, dream sleep is very important. The brain will try to make up for dream sleep deprivation the next time we sleep, though the brain will only attempt to recover half of the deprived dream sleep as opposed to all of the deep sleep that we lost.

Stage 2

- A milder form of deep sleep
- Involved with energy restoration

Stage 1

- More of a deep relaxation state than a true sleep state
- Prepares the mind and body for the entry into sleep



Sleep Control Mechanisms in the Brain

Next, let's talk about the brain's wake system and sleep system:

- The wake system promotes alertness during the day
- The sleep system promotes sleep at night

- The wake system is dominant for about 16 hours a day, while the sleep system is dominant for the remaining eight hours of the day
- The longer the wake system is "on" during the day (that is, the more waking time we accumulate during the day), the greater the drive or pressure for nocturnal sleep and the better we sleep.

The Brain's Internal 24-hour Clock

Your brain and body have a 24-hour clock. This clock regulates body temperature by controlling the release of a naturally occurring hormone in the brain called "melatonin". When sunlight enters the eyes, melatonin concentrations decrease, which promotes wakefulness and increased alertness by signaling body temperature to rise. Body temperature generally rises during the day except for a brief dip in the afternoon, and then hits its daily peak around 6:00 p.m.

- We are most alert in the late morning and early evening when body temperature is highest.
- At nighttime, light ceases to enter the eyes, which causes the secretion of melatonin. Body temperature drops, alertness wanes, and we get sleepy.
- Body temperature continues to decline and reaches its daily low at around 4:00 a.m.; it then prepares us for waking by beginning to rise before sunrise. Once we awaken, the cycle of increasing body temperature during the day and falling temperature at night repeats itself.

Lesson 3: The Various Types of Insomnia

Now let's review the various types of insomnia. There are two types of insomnia:

Difficulty falling asleep at bedtime

- Termed sleep-onset insomnia
- Defined as requiring at least a half hour on average to fall asleep

Waking up and lying awake during the night

- Termed sleep-maintenance insomnia
- Defined as lying awake during the night for at least a half hour on average

To meet the diagnosis for insomnia, you must also experience negative consequences (e.g., fatigue, impaired performance) during the day from your disturbed sleep. Some individuals do not have difficulty falling or staying asleep, but complain of poor sleep quality.

No matter which type of insomnia you have, research on insomnia suggests that insomniacs have a wake system that is too strong and a sleep system that is too weak.



Key Concept: CBT teaches you to strengthen your sleep system and weaken your wake system so that you fall asleep and stay asleep at night more easily.

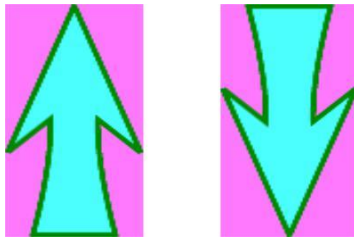
Lesson 4: How Chronic Insomnia Evolves

How do you get chronic insomnia? It starts as short-term insomnia. Not being able to sleep for a few days or weeks is normal, especially in response to stressful life events. Insomnia that persists for a month or longer is termed chronic insomnia, which can affect you a few nights per week or most nights, and can occur weekly or in a cyclical fashion.

Short-term insomnia develops into chronic insomnia as a result of:

- worrying about sleep loss
- associating the bed with wakefulness
- spending excessive time in bed
- trying to “force” sleep
- engaging in other disruptive or negative sleep behaviors, such as arising at irregular times
- experiencing stress

SLEEP



THOUGHTS AND BEHAVIORS

Although medical and mental health problems can cause insomnia and disturb sleep, they do not play a primary role in most cases of chronic insomnia. If you suspect you have a medical or mental health problem contributing to your insomnia, or if you have not seen your doctor in a while, schedule a thorough medical evaluation as soon as possible.

Lesson 5: Sleeping Pills



Because sleeping pills are such a common treatment for insomnia, let's review some important facts about sleep medications.

There are three types of sleeping pills:

- Benzodiazepine sedative hypnotics (BZDs) or similar pills
- Sedating antidepressants
- Over-the-counter medications

Regular use of sleeping pills – particularly BZDs – can lead to these side effects:

- Reduced deep sleep and REM sleep, and increased Stage 2 sleep
- A "hangover" effect the following day that can impair coordination, alertness, memory, and thinking
- Physical or psychological dependency and withdrawal symptoms if one attempts to abruptly stop taking the medication
- Tolerance (larger doses may be required for the drug to work.)

Sleeping pills can be appropriate for:

- Occasional, intermittent use in chronic insomnia
- Short-term insomnia

It is important to realize that the effects of sleeping pills are partly due to a "placebo" effect. This means that the effect of a sleeping pill is due in part to you and your belief that the pill will work.

Lesson 6: Insomnia Self-Assessment

Determining Your Baseline Sleep Pattern

To determine your baseline sleep pattern, you will need to complete a sleep diary for one week. Use the sleep diary that is included with this program and record the information on the diary each morning upon arising for one week. You will use your baseline sleep pattern to begin sleep scheduling techniques in Session 2.

Keep in mind that the sleep diary is not meant to promote clock-watching. The diary is simply an estimate of your sleep. Keep the diary somewhere other than your bedroom and make sure that any clocks in your room are facing away from you or are across the room, so that you do not watch the clock at night. Clock-watching only serves to increase stress about your sleep.

Medical Problems and Drugs that Can Affect Sleep



Although medical problems are not typically the primary cause of chronic insomnia, the following is a list of medical problems and drugs that can disturb sleep. Make a note of those that may apply to you and make sure your doctor has thoroughly evaluated whether these problems may be affecting your sleep.

- Angina, asthma, bronchitis, and emphysema
- Allergies, indigestion, reflux, or ulcers
- Bladder problems, arthritis, chronic pain, headaches
- Epilepsy, hyperthyroidism, kidney disease, diabetes, dementia
- Menopausal hot flashes, premenstrual syndrome
- Analgesics that contain caffeine, prescription diet pills, steroids
- Beta blockers, nasal decongestants that contain stimulants
- Asthma medications that have stimulating effects

Mental Health Problems That Can Affect Sleep

Although mental health problems are not the primary cause of the majority of cases of chronic insomnia, insomnia is a common symptom of disorders such as depression. If you think you have any of the following mental health problems, you should see your doctor for further evaluation.

- Depression: common symptoms include depressed mood or loss of interest or pleasure in daily activities nearly every day of a two-week period.
- Anxiety: symptoms include persistent, excessive, uncontrollable worry that causes one to feel on edge regularly.
- Post-Traumatic Stress Disorder: a traumatic event is continually re-experienced emotionally, resulting in fear and anxiety.

Underlying Sleep Disorders That Can Cause Insomnia



Like medical and mental health problems, underlying sleep disorders are not the primary cause of the majority of cases of chronic insomnia. However, these disorders can contribute to insomnia. If you think you have any of the following disorders, you should see your doctor or a sleep clinic for further evaluation.

- Sleep Apnea: characterized by pauses in breathing that can occur hundreds of times per night. Symptoms include loud snoring, gasping for air, excessive daytime sleepiness.
- Periodic Limb Movements: episodes lasting from a few minutes to several hours that involve the legs or arms twitching, jerking, or kicking.
- Delayed Phase Disorder: not being to fall asleep until 3:00 or 4:00 A.M. and then sleeping seven or eight hours until 10:00 or 11:00 A.M.

Sleep Apnea

This sleep disorder, which causes breathing to stop during sleep anywhere from 10 seconds to several minutes, is more prevalent in older individuals, men, and overweight people. The pauses in breathing, called apneas, can occur several hundred times per night and cause a drop in blood oxygen levels. This forces the heart to work harder to keep the blood oxygenated and explains why sleep apnea is a risk factor for cardiovascular problems. Sleep apnea can leave the person feeling exhausted because the apneas constantly interrupt sleep. If you exhibit loud snoring, pauses in your breathing, or gasping sounds as determined by a bed partner, you should seek an evaluation from your physician or a sleep disorders center.

Periodic Limb Movements

Periodic Limb movements (PLMs) are episodes lasting from a few minutes to several hours during sleep that involve the arms or legs twitching, jerking, or kicking repeatedly. Like sleep apnea, the interruptions in sleep caused by PLMs can leave the person feeling exhausted. If you wake up with your bedcovers in disarray, or if a bed partner has told you that you jerk or kick during sleep, you should be evaluated by your physician or a sleep disorders center.

Delayed Phase Disorder

Individuals with this disorder cannot fall asleep until very late (often 3:00 or 4:00 a.m.) but, once asleep, usually sleep well for 7 or 8 hours. This disorder is caused by a body temperature rhythm that falls too late at night and is treated with artificial bright light boxes at sleep clinics to normalize the body temperature rhythm.

Lesson 7: Week #1 Goals



Week #1 Goals

Your goal this week is to:

- Complete the sleep diary each morning using the sleep diary at the back of your journal.
- When you have completed all seven nights on your sleep diary, use it to complete the sleep diary from www.reddeerpcn.com.
- **E-mail** the sleep diary to sleep@rdpcn.com.
- You will then receive individualized sleep scheduling guidelines within 72 hours **by e-mail**. (You will learn about these in Session 2). Put these recommendations into practice also.
- Then go on to Session 2.

Session 2

Sleep Scheduling and Stimulus Control Techniques



Two of the most important techniques in the Conquering Insomnia program that you will learn in this session are called *sleep scheduling* and *stimulus control* techniques.

Sleep scheduling involves learning to strengthen your sleep system by changing when you go to bed, get out of bed, and how much time you spend in bed; and limiting naps.

Stimulus control techniques are designed to strengthen your brain's association between the bed and sleep by making the bed a stronger cue for sleep.

Lesson 1: Sleep Scheduling Techniques

Prior Wakefulness and Sleep Efficiency

To use sleep scheduling techniques, you must first understand the concepts of prior wakefulness and sleep efficiency:

- Prior wakefulness refers to the number of hours that have gone by from the time you get out of bed in the morning until you turn off the lights at bedtime to go to sleep. The greater the amount of prior wakefulness, the stronger the sleep system and the better you will sleep. Thus, the earlier you get out of bed and the later you go to bed, the better you will sleep.
- Sleep efficiency is the ratio of how much time you actually spend sleeping versus how much time you allot for sleep (from lights out at bedtime to arising time in the morning). Most poor sleepers average about 5.5 hours of sleep and allot just over 8 hours for sleep, which is a sleep efficiency of about 65 percent. This means that they are awake one-third of the time that they allot for sleep. As a result, the bed has become a strong cue for wakefulness one-third of the night instead of sleep.



Key Concept: *Your goal will be to improve your sleep efficiency in order to make your bed a stronger cue for sleep.*

A Regular Rising Time is Important

In an effort to make up for lost sleep, many insomniacs sleep in longer on weekends or after a bad night's sleep. Although this strategy may work in the short run by providing a few hours of extra sleep or bed rest, it actually contributes to insomnia in the long run for several reasons:

1. It delays the rise and fall in body temperature throughout the day, making it harder to fall asleep that night.
2. It reduces your normal amount of prior wakefulness. As a result, you will weaken your sleep system and have a harder time falling asleep and staying asleep that night.
3. Sleeping later on weekends is the primary cause of Sunday night insomnia. Although you might think that Sunday night insomnia is caused by the mental adjustment of going back to work after the weekend, it is often due to later arising times on the weekends, which causes a delay in the body temperature rhythm and reduces prior wakefulness.

Sleep Scheduling Guideline #1



Sleep scheduling guideline number 1 is to *get out of bed around the same time every day, including weekends, no matter how poorly you sleep.* Therefore, you should set an arising time goal, then set an alarm clock if necessary so that your arising times do not vary by more than a half hour. If you feel you must sleep in after a bad night's sleep and cannot meet this goal, limit yourself to one hour and not more than twice a week. However, this is likely to disrupt your sleep just as changing the clocks by an hour in the spring disrupts sleep.

A regular arising time is crucial to establishing a consistent sleep rhythm and amount of prior wakefulness. If you sleep late on weekends or after a poor night's sleep, you delay the rise and fall in your body temperature which will make it hard to fall asleep at bedtime. Furthermore, you will reduce your prior wakefulness because you stayed in bed later. This will weaken your sleep system and make it harder to sleep.

Reducing Time Allotted for Sleep is Important

Another common coping strategy among insomniacs is to go to bed early in order to get a head start on sleep, to increase the likelihood of being asleep at a certain time, or to catch up on lost sleep or bed rest. Some insomniacs also go to bed early simply to escape boredom.

Instead of leading to increased sleep time, however, going to bed early actually makes insomnia worse. This is because of a simple principle: the earlier you go to bed and the more time you spend in bed, the more you reduce prior wakefulness, weaken the sleep system, and make insomnia worse. In the long run, increased time in bed also contributes to reduced sleep efficiency and makes the bed a stronger cue for wakefulness.

Sleep Scheduling Guideline #2

Sleep scheduling guideline number 2 is to *reduce the time you allot for sleep (time elapsed from lights out to arising time in the morning), by going to bed later or getting up earlier, so that it more closely matches your average sleep time.* To determine the maximum amount of time you should allot for sleep, add one hour to your average sleep duration for the week. Thus, if you are averaging 5 hours of sleep, the maximum amount of time you should allot for sleep is 6 hours. Or, if you are averaging 6 hours of sleep, you should not allot more than 7 hours for sleep, and so on. However, if you are averaging less than 5 hours of sleep, you should not allot less than five and one-half hours for sleep.

The more that you reduce the time you allot for sleep so that it closely matches your average sleep duration, the stronger your bed will be a cue for sleep. And the more you reduce the time you allot for sleep, the more you will strengthen your sleep system by increasing prior wakefulness.

As your average sleep duration increases throughout this program, you can gradually increase your time allotted for sleep goal.

Sleep Scheduling Guideline #3

Sleep scheduling guideline number 3 is to *determine your earliest allowable bedtime (e.g., lights out time) by starting from your arising time goal and subtracting your maximum allowable time allotted for sleep.* For example, if you have determined that your arising time goal is 6:00 a.m. and your maximum time allotted for sleep should be seven hours, you should not turn your lights off to go to sleep before 11:00 p.m.

If you find it difficult to stay up until your earliest allowable bedtime goal, use physical activity to prevent drowsiness instead of stretching out on the couch or recliner in a dimly lit room the hour before your targeted bedtime. If you are reading or watching television, walk around every tenth page of your book or after every commercial on the television.

As your average sleep duration increases over the next several weeks, your time allotted for sleep goal will increase. In turn, your earliest allowable bedtime will change.

Sleep Scheduling Guideline #4



Sleep scheduling guideline number 4 is to *limit naps to less than 45 minutes and no later than 3:00 p.m.* Naps longer than 45 minutes or taken later than 3:00 p.m. can make it harder to sleep later that night because they often consist of deep sleep. If you enter deep sleep during a nap, you have “borrowed” your deep sleep from the upcoming night and will weaken your sleep system as a result.

However, naps of 45 minutes or less taken no later than 3:00 P.M. will not disturb your sleep and will help you to feel more energetic and alert for the remainder of the day, particularly after a poor night’s sleep. This is because we experience a dip in our mood and alertness in the mid-afternoon, and, because the brain was designed to have a mid-afternoon nap to compensate for this dip. Research suggests that naps as brief as 10 minutes can enhance mood and alertness, especially after a night of poor sleep.

If you presently take naps that are longer than 45 minutes or after 3:00 p.m., keep track of the timing and length of your naps over the next week.

Lesson 2: Stimulus Control Techniques



Poor sleepers have lain awake for so many nights that the bed and bedroom have become strong cues for frustration and the inability to fall asleep. As a result, just getting into bed often triggers a learned wakefulness response.

Poor sleepers engage in many behaviors that make the bed a cue for wakefulness. These include:

- Using their bedroom to watch television long before bedtime
- Using their beds for other activities like talking on the phone, reviewing work-related material or studying, or problem-solving with a spouse
- Lying in bed long after awakening in the morning
- Trying to force sleep by “trying” to sleep. However, we cannot force sleep. In fact, this backfires and creates more mental and physical arousal that disturbs sleep and strengthens the wakefulness system.

Stimulus control techniques are designed to reduce the brain’s association between the bed and wakefulness while increasing the association between the bed and sleep. By making the bed a stronger cue for sleep, you will more readily fall asleep and stay asleep.

Stimulus Control Techniques

Here are the first three steps in stimulus control:

Step 1: Use your bedroom for sleep and sexual activity only. Do not use your bed and bedroom to study or talk on the telephone, or as your primary room for watching television, etc. Your goal is to associate your bed with sleep, not wakefulness.

Step 2: Limit awake time in bed to one half hour both before lights go out and after your final awakening in the morning. If you like to read or watch television in bed before bedtime as a transitional activity, limit this to 20-30 minutes. Similarly, get out of bed in the morning within 20-

30 minutes of your final awakening. Remember, your goal is to associate your bed with sleep, not wakefulness.

Step 3: Make sure you feel drowsy when you turn off the lights to go to sleep. Otherwise, you are more likely to lie awake and think. Learn to rely on internal cues as indicators of drowsiness (such as eyes closing, head nodding) rather than external cues such as the clock or your partner's bedtime. If you go to bed at the same time every night, you are probably relying on external cues since it is unlikely you get drowsy at the same time every night. (Since you will be reducing the time that you allot for sleep by going to bed later or getting up earlier, you will be more likely to feel drowsy at bedtime.)

Here is the last, and most important, step in stimulus control:

Step 4: If you do not fall asleep within 20 -30 minutes, or if you awaken during the night and do not fall back to sleep within that time and are wide awake, do not lie in bed tossing and turning. (Also, since you should not focus on the clock, the 20- 30 minute guideline should be estimated.) Instead, go to another room and engage in a quiet, relaxing activity (watching television or reading a magazine or book) for at least 30 minutes or until you feel drowsy, then attempt to go to sleep again. Repeat this procedure as often as necessary until you fall asleep. You can also stay in bed and read when you cannot sleep as long as you go back to sleep in a half hour; otherwise, you will associate your bed with wakefulness. This is called the "1/2 hour-1/2 hour rule".

You may be tempted to simply lie wake in bed when you cannot sleep in the hope that, if you give it just a few more minutes, you will likely fall asleep. Or, you may believe that you are better off staying in bed when you cannot sleep because you think that getting out of bed will make you more awake. However, studies prove that the longer you lie in bed awake, the longer you will remain awake and the more your bed will be associated with wakefulness.

Here is a four-step summary of stimulus control techniques:

1. Use your bedroom primarily for sleep.
2. Limit awake time in bed to one half hour both before lights out and after your final awakening in the morning.
3. Go to sleep only when drowsy.
4. If you are not asleep in 20-30 minutes, do something other than trying to sleep.

Lesson 3: Week #2 Goals



Your goals this week are to:

- Set an arising time goal, then set an alarm clock if necessary so that your arising times do not vary by more than a half hour. Use the guidelines you received from your week 1 sleep diary to set this goal.
- Determine your maximum time allotted for sleep goal, and then begin following your time allotted for sleep goal (from lights out to out of bed) each day. Limit time in bed before lights out and after awakening to one-half hour. Use the guidelines you received from your week 1 sleep diary to set this goal.
- Determine your earliest bedtime goal, and then begin following your earliest bedtime goal (e.g., lights out) each day. Use the guidelines you received from your week 1 sleep diary to set this goal.
- Use your bedroom primarily for sleep
- Do not go to bed until you feel drowsy
- Follow the ½ hour- ½ hour rule
- **Continue your sleep diary.**
- When you have completed all seven nights on your sleep diary, use it to complete the sleep diary from www.reddeerpcn.com.
- **E-mail** the sleep diary to sleep@rdpcn.com.
- You will then receive individualized sleep scheduling guidelines by e-mail. Put these recommendations into practice also.
- Then go on to Session 3.

Tips for meeting these goals:

To help you meet your arising time goal:

- ✓ Use an alarm clock.
- ✓ Plan enjoyable early morning activities (e.g., read the newspaper, walk the dog, exercise, take a walk) to increase the likelihood of arising on time.

To help you meet your time allotted for sleep goal:

- ✓ View the extra time out of bed as an opportunity to accomplish other things.
- ✓ Remind yourself this goal is only temporary until your sleep improves.

To help you meet your earliest bedtime goal:

- ✓ Be more active in the late evening instead of being a “couch potato”, which makes it harder to ward off fatigue.

To help you limit your nap time:

- ✓ Use an alarm clock.
- ✓ Nap in a chair instead of a bed so you will not be as comfortable.

To help you use your bedroom primarily for sleep:

- ✓ Set up another room as your primary reading or television room.
- ✓ Move your television out of the bedroom.

To help you limit your awake time in bed:

- ✓ Read or watch television in another room.
- ✓ Use an alarm in the morning.

To help you go to bed only when drowsy:

- ✓ Use internal cues as indicators of drowsiness (yawning, eyes closing) rather than external cues like the end of the news or a partner's bedtime.

To make sure you follow the ½ hour- ½ hour rule:

- ✓ Make sure you have relaxing things to do when you can't sleep (a book, magazine etc.). Use **My Relaxing Activities** in the resource section at the back of your journal to plan activities you can do **out of bed** when you can't sleep.

Session 3

Cognitive Restructuring and Sleep Medication Reduction Techniques

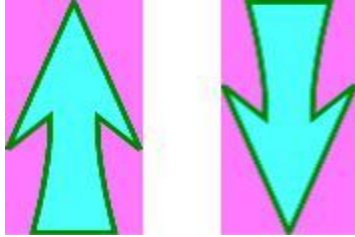


Lesson 1: Introduction to Cognitive Restructuring

Negative Thoughts About Sleep

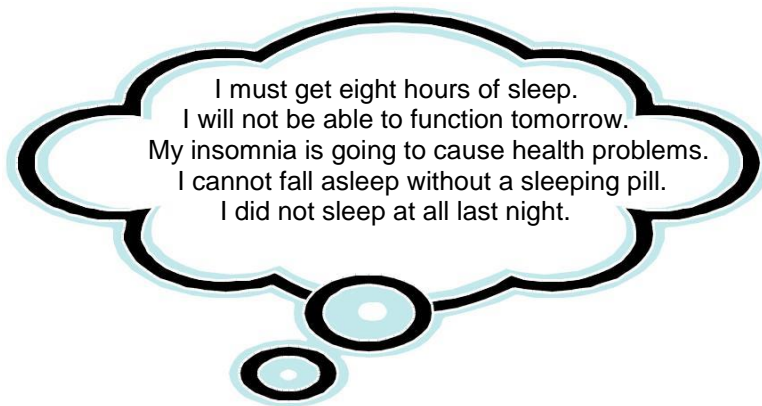
A major problem with insomnia is the worry that it will affect you the next day. Negative, stressful thoughts about sleep worsen insomnia by triggering emotions such as anxiety or frustration that mobilize the stress response. In turn, the stress response strengthens the wakefulness system, weakens the sleep system, and makes it harder to sleep. And the harder it is to sleep, the more anxious one feels about not sleeping!

NEGATIVE SLEEP THOUGHTS



INSOMNIA

Here are some examples of negative sleep thoughts that are very common:



I must get eight hours of sleep.
I will not be able to function tomorrow.
My insomnia is going to cause health problems.
I cannot fall asleep without a sleeping pill.
I did not sleep at all last night.

Recognizing and Changing Negative Sleep Thoughts

As you will learn in this session, negative sleep thoughts are usually distorted and inaccurate. They only make your insomnia worse.

You can overcome insomnia by learning to recognize and change your negative sleep thoughts with cognitive restructuring. Cognitive restructuring means replacing negative sleep thoughts with more helpful, accurate thoughts about sleep. The goal of cognitive restructuring is simple yet powerful: *by recognizing and replacing your negative sleep thoughts with more accurate, positive thoughts about sleep, you will reduce worry and other negative emotions that trigger the stress*

response and disturb your sleep. The more you practice cognitive restructuring, the better you will sleep.

Keep in mind that cognitive restructuring is not the same as pretending you don't have insomnia or simply using the power of positive thinking. It means thinking about insomnia less negatively and more accurately.

Scientific Findings: Sleep and Insomnia

To recognize and replace your negative sleep thoughts with more accurate, positive thoughts about sleep, you must first learn about some important scientific findings concerning several aspects of sleep and insomnia:

- Sleep duration, health, and daytime functioning
- The effects of sleep loss on daytime performance
- How much sleep you think you are getting

Lesson 2: Sleep Duration, Health, and Daytime Functioning

The Eight Hour Sleep Myth

Although many people think that we need at least eight hours of sleep to stay healthy, recent studies show that people who sleep seven hours live longer than people who sleep eight:

- Three studies involving over a million people demonstrated that people who sleep seven hours per night have the lowest death rates and those who sleep eight or more hours per night have progressively increasing rates of death.
- The studies showed that sleeping five hours per night is associated with longer life expectancy than sleeping nine hours per night.
- All three studies are in agreement that long sleep is associated with greater mortality than short sleep.
- The findings of these three studies involving enormous samples (up to one million people) are consistent with a dozen smaller studies, and no persuasive studies have contradicted these findings.



Key Concept: *This means that you do not have to worry about getting eight hours of sleep per night to stay healthy.*

Similarly, many of us do not need eight hours of sleep to function effectively during the day:

- Many individuals cannot sleep eight hours even if they try.
- The amount of sleep that we need to feel alert during the day varies from person to person. The majority of adults sleep less than eight hours per night and report feeling rested during the day.
- If we needed eight hours of sleep, we would expect adults to average about eight hours of sleep but this is not the case: adults average about seven hours of sleep.
- The majority of adults who sleep less than eight hours report positive mood during the day, feel optimistic, and are satisfied with their lives.



Key Concept: This means that you do not have to worry about getting eight hours of sleep per night to function effectively during the day.

Sleep Loss and Daytime Performance

What about the effects of sleep loss on daytime performance? Although research shows that not getting enough sleep can make it harder to do your normal daily tasks, the effects of sleep loss also depends upon how much sleep is lost and how often it happens. Research also shows that:

- Everyone is different. Some people are affected a lot by sleep loss while others may be affected very little.
- Some individuals show a remarkable tolerance for sleep loss, particularly if the person is motivated to cope with sleep loss (such as caring for a newborn) or the sleep loss occurs under positive circumstances (such as a vacation or a party).
- Some of the effects of sleep loss may actually be due to the effects of stress that led to the sleep loss. In fact, stress has been shown to have much greater effects on our functioning than sleep loss.
- Most studies on sleep deprivation are typically on young, healthy, eight-hour sleepers who are restricted to four hours of sleep. However, these younger eight hour sleepers are more susceptible to the effects of sleep loss than shorter sleepers or older sleepers.
- Studies on insomnia patients show that sleep loss does not affect them as much as normal sleepers.



Key Concept: This means that sleep loss does not always have adverse effects on daytime functioning.

Lesson 3: Sleep Loss and “Core” Sleep

Core Sleep

Now let's explore the concept of core sleep. Research also suggests that many individuals can maintain performance for extended periods of time on about five and half hours of sleep, or what some sleep researchers call “Core Sleep”:

- People who need to maintain performance under challenging circumstances -such as rescue workers, armed services personnel, physicians, and solo yacht racers - can maintain their performance with five to six hours of sleep.
- Studies on insomnia patients show that they average just under six hours of sleep yet do not have poorer daytime performance or alertness than good sleepers.
- The reason core sleep can maintain performance in those who suffer from insomnia is that it contains 100 percent of our deep sleep (the most important stage of sleep) and fifty percent of our dream sleep (the second most important stage of sleep).
- Core sleep does not have to be obtained continuously (that is, we can sleep for two hours, be awake for an hour, and then sleep three or four more hours). Also, your brain is “programmed” to get core sleep (that is, it will do its best to obtain core sleep each night).



Key Concept: This is not to say that we only need core sleep, since most people need additional sleep to feel their best. However, it does mean that your performance will usually not suffer significantly if you obtain core sleep.

Lesson 4: Perceived vs. Actual Sleep Duration

You Are Getting More Sleep Than You Think

Research shows that people with insomnia are getting more sleep than they think:

- They overestimate how long it takes to fall asleep and how long they are awake during the night.
- They underestimate how much sleep they get.

This misperception of sleep is because they perceive stage 2 sleep as wakefulness; and, the fact that time perception is altered under the stressful circumstances of lying awake. As a result, perception of time seems longer than actual clock time.



Key Concept: *This means that, by recognizing you are likely getting more sleep than you think, you will reduce negative sleep thoughts and sleep better.*

Lesson 5: Insomnia and Daytime Mood

Finally, let's take a look at the relationship between insomnia and daytime mood.



You may notice that the biggest effect of insomnia is on your mood the following day. You may feel irritable, worried, tired, or a little depressed. This is important to know for changing your negative sleep thoughts:

- In most cases, it is only your mood that may be affected for the day after a bad night's sleep.
- It is not just how much sleep you lose that affects your daytime functioning but also your negative thoughts about your sleep loss. If you can reduce negative thoughts about your sleep loss, you will reduce the effects of insomnia on your daytime mood and functioning.
- If you wake up and begin your day with a negative sleep thought such as "The day is going to be miserable because I did not sleep well", **it is the combination of sleep loss and negative mood from this thought** that affects your daytime functioning. You can prove this to yourself by noticing that sleep loss due to positive events (such as parties, vacation, etc.) does not have as much of a negative impact on daytime functioning.

Lesson 6: Practicing Cognitive Restructuring

Now that you have spent some time learning about the scientific findings concerning sleep and insomnia, you are ready to practice cognitive restructuring each day to reduce your negative sleep thoughts and improve your sleep and your daytime mood.

Your Negative Sleep Thoughts

To begin, you can identify your most frequent negative sleep thoughts using the list below. For each negative sleep thought, you will be given positive sleep thoughts that you can use to replace those negative sleep thoughts. The positive sleep thoughts that you will be given are based on the information you just learned about involving sleep, health, and performance; and, on the information we reviewed in Session 1 concerning basic facts about sleep and sleeping pills.

You will begin to use these positive sleep thoughts each day to replace your negative sleep thoughts. Review them regularly. It may be helpful to write them down, print them or keep them by your bed to refer to at night or when you wake up in the morning.

The 10 Most Common Negative Sleep Thoughts

Now, choose the negative sleep thoughts from the following list that are similar to those you experience most frequently, then review the positive sleep thoughts on the next page that you can use to replace those specific thoughts:

- I will never fall asleep.
- I woke up in the middle of the night/early morning and feel wide awake. This means I will not be able to fall back to sleep.
- I will not be able to function tomorrow.
- I must get eight hours of sleep.
- My insomnia is going to cause health problems.
- I did not sleep at all last night.
- I cannot fall asleep without a sleeping pill.
- I feel terrible today due to my insomnia.
- I will never learn to sleep better.
- What is wrong with me? I must have a psychological problem.

Positive Sleep Thoughts That You Can Use to Replace Specific Negative Sleep Thoughts



I will never fall asleep

- I am more likely to fall asleep as my body temperature falls throughout the night.
- My brain wants to obtain my core sleep.

I woke up in the middle of the night or early morning and feel wide awake. This means I will not be able to fall back to sleep.

- It is normal to initially feel alert if I awaken at the beginning or end of dream; drowsiness will soon follow.
- If I awaken after about five and a half hours of sleep, I obtained my core sleep. If I do not fall back to sleep, I will be okay.

I will not be able to function tomorrow.

- In most cases, the worst thing that may happen if I do not sleep well is that I may not be in the best mood during the day.
- Sleep loss does not always have a significant impact on my daytime functioning.
- I can handle sleep loss, especially if it is only happening a few nights per week.
- My performance will not suffer significantly if I get my core sleep.
- My functioning will improve during the day as my body temperature rises.

I must get eight hours of sleep.

- Sleep requirements vary from person to person.
- Sleeping seven hours per night is associated with the longest life expectancy.

My insomnia will cause health problems.

- There is no cause-and-effect evidence that insomnia causes any significant health problems.

I slept very little or not at all last night.

- I am probably getting more sleep than I think I am.

I cannot fall asleep without a sleeping pill.

- As I learn these CBT techniques, I will fall asleep more easily on my own.
- I am better off without sleeping pills since many of them cause a hangover effect and reduce my deep sleep.
- Sleeping pills do not work that well anyway, since part of their effect is actually a placebo effect.
- It will become easier to fall asleep without a sleeping pill the more I try it.

I feel awful today because I did not sleep well.

- My daytime functioning is due in part to my negative sleep thoughts. If I minimize my negative sleep thoughts, I will improve my daytime functioning.
- My daytime functioning is not just affected by my sleep.

I will never learn to sleep better.

- These techniques work for most people with insomnia, they will work for me.
- My sleep will get better as I learn these CBT techniques.

What is wrong with me? I must have a psychological problem

- Most cases of insomnia are due to learned thoughts and behaviors, not mental health problems.
- Insomnia is very common. It affects over half of adults.

Lesson 7: Sleeping Pills



Putting Sleeping Pills to Rest

If you are taking sleep medication and you want to reduce the amount you are taking, you are ready to begin sleep medication reduction techniques along with the cognitive restructuring techniques this week.

Several studies on CBT have shown that 50% of people who regularly use sleep medication reduce the amount they take and the other 50% stop entirely. Two important elements aid the success of these sleep medication reduction techniques:

- You can reduce sleeping pill use at your own pace.
- The techniques allow you to gradually decrease sleep medication rather than stopping abruptly “cold turkey”, which can backfire and cause increased anxiety and insomnia.

Putting Sleeping Pills to Rest

Since regular users of sleeping pills can experience withdrawal symptoms or rebound insomnia if they stop sleeping pill use abruptly, gradually tapering sleeping pill use minimizes the likelihood of these problems. Be sure to discuss these medication reduction guidelines with your physician.

Here are the sleep medication reduction techniques:

First, begin by determining the number of nights you generally use sleeping pills during the week, and the typical number of pills on those nights.

Next, reduce the number of pills you are taking by one-half on two nights this week. Space the two nights apart.

- If you are only taking one pill, cut the dose in half and consider this a half pill.
- Choose easier nights when there is little pressure or work obligations the following day.

- Use positive sleep thoughts that we have explored such as “In most cases, the worst thing that may happen if I do not sleep well is that I may not be in the best mood during the day”.

Once you are sleeping reasonably well on the two reduced pill nights (this may happen immediately or may take a week or two), you will feel more confident about reducing sleep medication and can then:

- Reduce the number of pills by half on two more nights during the week.
- Space these four medication reduction nights apart (e.g., every other night).

Continue in this way until you have reduced the number of pills you take by half on all of the nights that you typically take sleep medication (you will eventually have to take the half dose on consecutive nights). Avoid going back to the original dose.

Once you have reduced the number of pills you take by one-half, begin to go medication-free in the same gradual fashion:

- No medication two nights a week
- Then no medication two more nights
- Then no medication every night

Examples of Sleep Medication Tapering

I take a sleeping pill every night. Therefore:

- I will pick two nights this week and take half a pill.
- My next goal will be to take half a pill every other night, then every night.
- Once I am down to half a pill nightly, I will not take a pill on two nights a week, then every other night, then every night.

I take a sleeping pill four nights per week. Therefore:

- I will pick two nights this week and take half a pill.
- My next goal will be to take half a pill on all four nights per week.
- Once I am down to a half pill on the four nights I take a sleeping pill, I will not take a pill on two nights a week, and then I will stop altogether.

I take two sleeping pills every night. Therefore:

- I will pick two nights this week and take one pill.
- My next goal will be to take one pill every other night, then every night.
- Once I am down to one pill nightly, I will take a half pill on two nights a week, then every other night, then every night. Then I will not take a pill on two nights a week, then every other night, then every night.

Lesson 8: Week #3 Goals



In addition to your goals from the prior week, your new goals this week are to:

- Begin using your positive sleep thoughts to replace your negative sleep thoughts.
- Work on your sleep medication reduction goal.
- **Continue your sleep diary.**
- When you have completed all seven nights on your sleep diary, use it to complete the sleep diary from www.reddeerpcn.com.
- **E-mail** the sleep diary to sleep@rdpcn.com.
- You will then receive individualized sleep scheduling guidelines by e-mail. Put these recommendations into practice also.
- Then go on to Session 4.

Tips for meeting these goals:

To help you practice cognitive restructuring for negative sleep thoughts:

- ✓ Review this session again on the importance of cognitive restructuring.
- ✓ Post your positive sleep thoughts on your mirror, keep them by your bed, etc.

To help you reduce sleep medication:

- ✓ Review Session 1 on the drawbacks of sleeping pills.
- ✓ Use positive sleep thoughts such as “This will get easier with practice”, “Sleep medications do not work that well anyway”, or “Part of the effect of sleep medications is the placebo effect.”

Session 4

Daytime Relaxation Techniques and Stress- Reducing Attitudes and Beliefs



Lesson 1: Stress and Sleep



The Links Between Stress and Insomnia

In this session we are going to talk about stress, sleep, and relaxation techniques.

Stress and insomnia are very closely linked:

- Stress is one of the most powerful disrupters of sleep.
- Insomnia is one of the first signs of stress.
- Sleep research shows that many of the negative effects of sleep loss may, in reality, be due to the effects of the stress.

Virtually all insomniacs have experienced stress-induced nights of insomnia:

- Major stressful life events are the most common causes of insomnia.
- Most people have a harder time sleeping on stressful days.
- Remember from Session 3 that stress also plays a primary role in the development of chronic insomnia. This happens because negative thoughts can set off negative emotions that then cause insomnia.

The Effects of Stress

Stress speeds up your brain waves and makes your heart rate and breathing rate more active. Studies have revealed that stress disrupts sleep in two ways:

- Stress reduces deep sleep, which results in lighter, more restless sleep.
- Stress that occurs during the day raises stress hormone levels in the body, even at night.

Lesson 2: Relaxation Techniques and Sleep



The Relaxation Response

Since we know that stress disrupts sleep, a lot of research has focused on the use of relaxation techniques for improving sleep. Dozens of scientific studies have shown that relaxation techniques such as biofeedback, progressive muscle relaxation, and breathing techniques are effective in the treatment of insomnia.

These techniques are effective because they all elicit the relaxation response, which:

- includes reduced physiological activity (e.g., slower brain waves, decreased respiration rate and muscle tension, etc.).
- is the brain's counterbalancing mechanism to the stress response.

The Relaxation Response and Sleep

The relaxation response improves sleep in three ways:

1. When practiced during the day, the relaxation response counters daily stress responses. This reduces the chance that stress hormones will be elevated at night.
2. When practiced at bedtime or after an awakening, the relaxation response helps to turn off negative sleep thoughts, quiet the brain, and relax the body.
3. It helps to quiet the brain by producing a brain wave pattern that is similar to Stage 1 sleep (remember from Session #1 that stage 1 sleep is the transition state between waking and sleeping).

By practicing the relaxation response at bedtime or after a nighttime awakening, it is easier to enter stage 1 sleep and then the other stages of sleep (Stage 2, deep sleep, and dream sleep).

Lesson 3: Learning To Use Relaxation Techniques



There are several steps to using relaxation techniques to improve sleep:

Step One: Relax the muscles throughout your body.

Step Two: Establish a relaxed breathing pattern. Under stress, we tend to breathe using short, shallow, irregular chest breaths, or we hold our breath. When we are relaxed, we breathe with the abdomen using slower, deeper breaths.

Demonstration: You can practice abdominal breathing simply by placing one hand on your stomach and the other on your chest. Without trying to slow or deepen breathing, simply focus on breathing with your abdomen. If you are breathing abdominally, only the hand on your stomach will move.

Step Three: Direct your attention away from everyday thoughts by choosing a word like "one", "relax", "peace", "heavy", or any other word, and concentrating on the rise and fall of your abdomen as you breathe. Repeat the word silently each time you exhale.

Step Four: Let relaxation occur at its own pace. Do not "try" to relax, and do not worry about whether relaxation is occurring. If distracting thoughts occur, disregard them and return your attention to the mental focusing technique.

When you have 20 minutes, find a quiet place and a comfortable position and try the relaxation techniques. Keep in mind that many people initially find that it is easier to relax the body but harder to quiet the mind. With practice, your ability to relax your body and quiet the mind will improve.

The most effective method for learning relaxation techniques is guided audio instruction as opposed to trying to learn the techniques on your own. The Red Deer PCN has a relaxation CD on our website (reddeerpcn.com) under groups- Anxiety to calm. Other options: search for "relaxation techniques" on You tube or use an application on your phone. These will teach you how to use body relaxation, breathing, and relaxing visual imagery to relax your mind and body and fall asleep more easily.

Lesson 4: Practicing Relaxation Techniques During the Day



Before using relaxation techniques to aid sleep, you should practice the techniques for 20 minutes during the day or early evening for the next week. This will allow you to get comfortable and consistent with the relaxation techniques before you begin to use them to help you fall asleep at bedtime or back to sleep during the night. In Session #5, we will review the use of these techniques to help you fall sleep at bedtime or after waking up during the night.

Here are some guidelines for practicing the relaxation techniques during the day or evening for the next week:

- The more you practice, the better the techniques will work for you. If you only practice a few times this week, you are less likely to benefit from the techniques.
- Practice in a comfortable place and position. Since you want to associate your bed with relaxation, the best place to practice your techniques during the day is on your bed.
- Designate a certain time of the day as your 20-minute relaxation time. Afternoon may be the best time to practice, since we have a biological tendency for a nap at that time. If you doze off during the techniques, this is a good sign that your brain will associate the techniques with drowsiness.

Finally, here are some tips for developing stress-reducing attitudes and beliefs that will also improve your sleep by reducing daily stress:

1. You will handle stress better, and sleep better as a result, by promoting optimistic thinking. Here are some strategies for promoting optimism:
 - View setbacks as temporary
 - Avoid generalizing a problem to your whole life
 - Don't dismiss positive events as due to luck
 - Avoid blaming yourself for things beyond your control
 - Practice an attitude of gratitude by focusing on what you have and positive events from the day. We can all find many positives in the course of the day if we look for them.
2. You will sleep better if you view change in your life as normal, constant, and a challenge instead of a threat. Change is stimulating, healthy, and essential for growth and personal development.
3. Develop the attitude that "people need people" and you will minimize the deleterious effects of stress on your sleep. Substantial evidence indicates that people with adequate social support- defined as family, friends, community contacts, social or religious organizations, or even a pet- manage stress better.
4. You will sleep better if you don't expect perfection or that others should always meet your expectations. When perfectionism isn't achieved or the behavior of others does not live up to our expectations, we get angry or frustrated. Be realistic and modify your expectations concerning perfectionism and the behavior of those around you.
5. Empathy and forgiveness reduce stress. If you follow basic religious and spiritual teachings by forgiving when you feel you have been wronged, and treat others as you would have them treat you, you will sleep better, be happier, and healthier.
6. Instead of going to bed angry, put anger in perspective by asking yourself how important an anger-producing situation would be if you only had one week to live. Ask yourself what difference the situation will make next week, month, or year.

Lesson 5: Week #4 Goals



In addition to your goals for the prior week:

- Your new goal this week is to begin practicing your 20-minute relaxation exercise during the day or early evening.
- **Continue your sleep diary.**
- When you have completed all seven nights on your sleep diary, use it to complete the sleep diary from www.reddeerpcn.com.
- **E-mail** the sleep diary to sleep@rdpcn.com.
- You will then receive individualized sleep scheduling guidelines by e-mail. Put these recommendations into practice also.
- Then go on to Session 5.

Tips for meeting this goal:

To help you practice the relaxation techniques during the day:

- ✓ Designate a specific time of the day and a specific place for your relaxation practice.
- ✓ Remind yourself that relaxation techniques improve sleep, mood, and the ability to handle stress.

Session 5

Bedtime Relaxation Techniques and Lifestyle Practices for Improving Sleep



Lesson 1: Relaxation Techniques at Night and Lifestyle Practices That Improve Sleep

Using Relaxation Techniques to Aid Sleep



If you practiced your relaxation techniques consistently each the day for the past week, you are ready to begin using them at bedtime or if you wake up during the night and do not quickly fall back to sleep:

1. At bedtime, or after a nighttime awakening, use the techniques in bed. You can use one of your chosen relaxation techniques (Red Deer PCN relaxation CD, Youtube videos, or phone apps) in bed to help you fall asleep.
2. Be patient and do not expect the relaxation techniques to induce sleep every night. If the techniques do not help you fall asleep or back to sleep within 20 to 30 minutes, follow the stimulus control guidelines: get out of bed and engage in a relaxing activity until you are drowsy, then return to bed and try the relaxation techniques again. Repeat this process until you are asleep.
3. If, after a few weeks of practice, the relaxation techniques do not seem to induce sleep, you should stop practicing them in bed. Otherwise, they may become associated with frustration.

Lesson 2: Lifestyle Practices That Can Improve Sleep

In addition to using relaxation techniques, certain lifestyle practices can improve your sleep. These include:

- Limiting the use of alcohol and caffeine
- Increasing your exposure to bright light
- Creating a sleep environment that is dark, cool, and quiet
- Exercising three to six hours before bedtime

Lesson 2: Alcohol and Caffeine Disturb Sleep

Caffeine



If you drink caffeine, keep several guidelines in mind. First, the following substances contain caffeine:

- Coffee
- Tea, black and green
- Soft drinks such as Colas (reg, diet); Dr. Pepper (reg, diet); Barq's rootbeer; iced tea
- Hot chocolate
- Energy drinks
- Chocolate candy
- Some cold and headache medications (read the label; ask your pharmacist)

Second, caffeine is a stimulant. It speeds up brain waves and increases heart rate and blood pressure. It also promotes alertness and reduces fatigue. This can last for six or more hours, so avoid caffeine after lunchtime. If consumed in large enough quantities, caffeine can also lead to dependency and withdrawal symptoms such as headaches, anxiety, irritability, and insomnia.

Alcohol



What about alcohol use? It can disturb sleep so keep these things in mind:

- It makes sleep lighter and more fragmented by suppressing deep sleep.
- It produces mild withdrawal symptoms that cause sleep to become interrupted, shortened, and fragmented. These disruptions result in lighter sleep and more awakenings, particularly in the early morning.
- Alcohol in combination with sleeping pills is dangerous and potentially fatal.
- It takes about two hours to metabolize one ounce of alcohol. This means that a glass of wine with dinner will probably not affect sleep. However, one ounce of alcohol within two hours of bedtime or more than one ounce after dinner probably will disrupt sleep. Therefore, limit alcohol to one drink at least two hours before bedtime.

Lesson 3: Sunlight and Sleep



The Sunlight- Sleep Connection

Sleep and body temperature are directly influenced by the effect of the daily cycles of light and darkness on melatonin, a naturally occurring hormone found in the brain:

- When sunlight enters the eyes, melatonin levels decrease, which signals body temperature to rise and promotes wakefulness.
- Darkness causes melatonin levels to rise and body temperature to fall, which promotes sleep.

Individuals who experience sleep-onset insomnia often have a body temperature rhythm that falls too late at night. Increasing exposure to early morning bright light can make it easier to fall asleep by causing the body temperature rhythm to rise earlier and fall earlier. In contrast, individuals who experience early morning awakenings often have a body temperature rhythm that rises too early in the morning. Increasing exposure to evening bright light can minimize early morning awakenings by delaying the rise in the body temperature rhythm.

Getting More Sunlight

Here are some simple techniques for increasing exposure to morning sunlight:

- opening the drapes immediately upon awakening
- eating breakfast or reading the newspaper near a sun-exposed window
- taking an early morning walk

Here are some simple techniques for increasing exposure to late day sunlight:

- taking a late day walk
- sitting near a sun-exposed window the hour before sunset

Lesson 4: Creating An Optimal Sleep Environment



A Cool Bedroom Aids Sleep

Sleeping in a warm room makes it harder for your body temperature to fall. This makes it more difficult to fall asleep and, because deep sleep will also be reduced, nighttime awakenings will be more likely to occur. Therefore, you should keep the bedroom cool by:

- turning the heat down
- leaving a window open
- using a fan or air conditioner

Minimize Bedroom Noise

You should also make sure your bedroom is quiet by:

- using earplugs
- closing the window if there is noise outside
- creating “white noise” through the hum of a fan, air conditioner, or a commercially available sound conditioner
- Listening to music or the television at bedtime helps some people fall asleep. However, a timer should be used so that the music or television turns off after about 30 minutes. Otherwise, one is more likely to wake up during the night because sound prevents us from entering deep sleep.

A Dark Bedroom Aids Sleep

The bedroom should be kept dark by using:

- drapes
- heavy shades
- an eyeshade if necessary

A Comfortable Bedroom Aids Sleep

The bedroom should be kept comfortable by using:

- a comfortable mattress
- comfortable bedding and pillows
- comfortable nightwear

Avoid Blue Light Before Bedtime

Electronic devices such as computers, tablets, and cell phones emit blue light. This wavelength in the light spectrum suppresses melatonin. If these devices are used before bedtime, the suppression of melatonin may disrupt sleep. Avoid these devices several hours before bedtime. Televisions also emit blue light but they will not suppress melatonin because they are too far away from the eyes.

Lesson 5: Exercise



Exercise as a Sleep Aid

Exercise can improve your sleep in the following ways:

- It produces a significant rise in body temperature that is followed by a drop in body temperature a few hours later.
- The drop in body temperature, which lasts for two to four hours after exercise, makes it easier to fall asleep and stay asleep.
- This beneficial effect of exercise on sleep is greatest when exercise occurs within three to six hours of bedtime.
- Exercising closer than three hours to bedtime, however, can make it more difficult to fall asleep for body temperature may then be too elevated near bedtime.

Exercise Later in the Day

If you are already exercising, try exercising later in the day and see if this improves your sleep. If you are not exercising, try exercising - which can simply involve brisk walking - in the late afternoon or early evening three or more days this week. Note whether you sleep better on these days. If you do, make exercise a regular lifestyle practice for improving your sleep.

Other suggestions for exercise include:

- Yard work or mowing the lawn
- Pushing a stroller
- Mall walking
- Bicycling
- Golf or tennis
- Hiking or dancing
- Running outside or on a treadmill, etc.

Lesson 6: Week #5 Goals



In addition to your goals for the prior weeks:

Your goals this week are to:

- Begin practicing the relaxation techniques at bedtime or during the night.
- Begin practicing the lifestyle goals that we just reviewed if you are not already practicing them regularly.
- **Continue your sleep diary.**
- When you have completed all seven nights on your sleep diary, use it to complete the sleep diary from www.reddeerpcn.com.
- **E-mail** the sleep diary to sleep@rdpcn.com.
- You will then receive individualized sleep scheduling guidelines by e-mail. Put these recommendations into practice also.

Tips for meeting these goals:

To help you practice relaxation techniques to fall asleep:

- ✓ Remind yourself that the more you practice relaxation techniques, the better you will get at using them to fall asleep.

To help you practice lifestyle habits that improve sleep:

- ✓ View these habits as something that can improve not only your sleep but your mood and health.

Lesson 7: Conclusion of This Program



Congratulations

By now, you should be sleeping better. As you continue to use all of the techniques you learned in this program, keep the following final guidelines in mind:

- Your sleep will likely continue to improve as you use these techniques. Because insomnia has been a long-term problem for many people, the maximum improvement in sleep may not occur in just five weeks.
- Research consistently shows that improvement following CBT techniques for insomnia is well-maintained in the majority of people long-term (several years).
- You can return to this program any time to refresh yourself on any or all of the techniques in this program.

If Your Sleep Has Not Improved

If your sleep has not improved, you may not be practicing the techniques consistently. Make sure you continue to work on the techniques and the recommendations from your SLEEP team.

Resources

Record my negative and positive sleep thoughts (NSTs and PSTs)

	Negative sleep thought	Positive sleep thought
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

Positive sleep thoughts

My performance will not suffer significantly if I get my core sleep

I'm probably getting more sleep than I think I am

My daytime functioning is not just affected by my sleep

Since I have survived nights of insomnia before, I can do it again

If I didn't sleep well last night, I am more likely to sleep well tonight due to a biological pressure to recover my core sleep

My daytime functioning is due in part to my NSTs

Sleep requirements vary from person to person

There is no evidence that insomnia causes health problems

Sleeping 6 to 7 hours per night is associated with the longest life expectancy

In most cases, the worst thing that may happen if I don't sleep well is that my mood will be impaired during the day

If I awaken after about 5 and 1/2 hours of sleep, I have gotten my core sleep

I'm more likely to fall asleep as my body temperature falls throughout the night

It is normal to initially feel alert if I awaken at the beginning or end of dream; drowsiness will soon follow

My functioning will improve during the day as my body temperature rises

My sleep will be improving as I learn these behavioral techniques

These techniques have worked for others, they will work for me

Customise a few of your favorite sleep thoughts to make a poster for yourself on the next page, "My good sleep thoughts".

My Good Sleep Thoughts



My Relaxing Activities

To help me to follow the ½ hour: ½ hour rule- if I do not fall asleep within 20-30 minutes or I awaken during the night and don't fall back to sleep within that time.

Relaxing activities I can do **out of bed** when I can't sleep...

Examples: *relaxation exercise, read, color*



WEEKLY SLEEP DIARY

Please note these instructions you received with the program:

When filling out this diary, enter numbers only (**using standard clock time**, not military time), save the diary, and email it as an attachment.

Do **NOT** include comments, questions, your history, or other information in your sleep diary email.

Name: **Sample sleep diary**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
What time did you go to bed?	9:30						
What time did you turn the lights out to go to sleep?	10:30						
<u>About</u> how long did it take you to fall asleep? (1/2, 1, 2 hours, etc.)	3 hours						
How many times did you wake up last night?	10						
<u>About</u> how long were you awake during the night? (total time of all awakenings) (1/2, 1, 2 hours, etc.)	1 hour						
What was your final wake up time this morning?	7:00						
What time did you get out of bed?	7:00						
About how many hours did you sleep last night?	4.5						
Sleep medications (<i>indicate dose</i>):	7.5 mg zopiclone						

WEEKLY SLEEP DIARY

Please note these instructions you received with the program:

When filling out this diary, enter numbers only (**using standard clock time**, not military time), save the diary, and email it as an attachment.

Do **NOT** include comments, questions, your history, or other information in your sleep diary email.

Name: _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
What time did you go to bed?							
What time did you turn the lights out to go to sleep?							
<u>About</u> how long did it take you to fall asleep? (1/2, 1, 2 hours, etc.)							
How many times did you wake up last night?							
<u>About</u> how long were you awake during the night? (total time of all awakenings) (1/2, 1, 2 hours, etc.)							
What was your final wake up time this morning?							
What time did you get out of bed?							
About how many hours did you sleep last night?							
Sleep medications (<i>indicate dose</i>):							

WEEKLY SLEEP DIARY

Please note these instructions you received with the program:

When filling out this diary, enter numbers only (**using standard clock time**, not military time), save the diary, and email it as an attachment.

Do **NOT** include comments, questions, your history, or other information in your sleep diary email.

Name: _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
What time did you go to bed?							
What time did you turn the lights out to go to sleep?							
<u>About</u> how long did it take you to fall asleep? (1/2, 1, 2 hours, etc.)							
How many times did you wake up last night?							
<u>About</u> how long were you awake during the night? (total time of all awakenings) (1/2, 1, 2 hours, etc.)							
What was your final wake up time this morning?							
What time did you get out of bed?							
About how many hours did you sleep last night?							
Sleep medications (<i>indicate dose</i>):							

WEEKLY SLEEP DIARY

Please note these instructions you received with the program:

When filling out this diary, enter numbers only (**using standard clock time, not military time**), save the diary, and email it as an attachment.

Do **NOT** include comments, questions, your history, or other information in your sleep diary email.

Name: _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
What time did you go to bed?							
What time did you turn the lights out to go to sleep?							
<u>About</u> how long did it take you to fall asleep? (1/2, 1, 2 hours, etc.)							
How many times did you wake up last night?							
<u>About</u> how long were you awake during the night? (total time of all awakenings) (1/2, 1, 2 hours, etc.)							
What was your final wake up time this morning?							
What time did you get out of bed?							
About how many hours did you sleep last night?							
Sleep medications (<i>indicate dose</i>):							

WEEKLY SLEEP DIARY

Please note these instructions you received with the program:

When filling out this diary, enter numbers only (**using standard clock time**, not military time), save the diary, and email it as an attachment.

Do **NOT** include comments, questions, your history, or other information in your sleep diary email.

Name: _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
What time did you go to bed?							
What time did you turn the lights out to go to sleep?							
<u>About</u> how long did it take you to fall asleep? (1/2, 1, 2 hours, etc.)							
How many times did you wake up last night?							
<u>About</u> how long were you awake during the night? (total time of all awakenings) (1/2, 1, 2 hours, etc.)							
What was your final wake up time this morning?							
What time did you get out of bed?							
About how many hours did you sleep last night?							
Sleep medications (<i>indicate dose</i>):							

WEEKLY SLEEP DIARY

Please note these instructions you received with the program:

When filling out this diary, enter numbers only (**using standard clock time**, not military time), save the diary, and email it as an attachment.

Do **NOT** include comments, questions, your history, or other information in your sleep diary email.

Name: _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
What time did you go to bed?							
What time did you turn the lights out to go to sleep?							
<u>About</u> how long did it take you to fall asleep? (1/2, 1, 2 hours, etc.)							
How many times did you wake up last night?							
<u>About</u> how long were you awake during the night? (total time of all awakenings) (1/2, 1, 2 hours, etc.)							
What was your final wake up time this morning?							
What time did you get out of bed?							
About how many hours did you sleep last night?							
Sleep medications (<i>indicate dose</i>):							