Improving Sleep through Behavior Change

Stimulus Control Procedures

Go to Bed only when You are Sleepy
There is no reason to go to bed if you are not sleepy. When you go to bed too early, it only gives you more time to become frustrated. Individuals often ponder the events of the day, plan the next day’s schedule, or worry about their inability to fall to sleep. These behaviors are incompatible with sleep, and tend to perpetuate insomnia. You should therefore delay your bedtime until you are sleepy. This may mean that you go to bed later than your scheduled bedtime. Remember to stick to your scheduled arising time regardless of the time you go to bed.

Get Out Of Bed When You Can’t Fall Asleep Or Go Back To Sleep In About 15 Minutes. Return to Bed Only When You Are Sleepy. Repeat This Step As Often As Necessary.
Although we don’t want you to be a clockwatcher, get out of bed if you don’t fall to sleep fairly soon. Remember, the goal is for you to fall to sleep quickly. Return to bed only when you are sleepy. When you feel sleepy (i.e., yawning, head bobbing, eyes closing, concentration decreasing), then return to bed. The object is for you to reconnect your bed with sleeping rather than frustration. It will be demanding to follow this instruction, but many people from all walks of life have found ways to adhere to this guideline.

Use the Bed or Bedroom for Sleep and Sex Only; Do Not Watch TV, Listen to the Radio, Eat, or Read in Your Bedroom.
The purpose of this guideline is to associate your bedroom with sleep rather than wakefulness. Just as you may associate the kitchen with hunger, this guideline will help you associate sleep with your bedroom. Follow this rule both during the day and at night. You may have to temporarily move the TV or radio from your bedroom to help you during treatment.

Sleep Hygiene Guidelines

Good dental hygiene is important in determining the health of your teeth and gums. We all know we are supposed to brush and floss regularly. Those who do so are more likely to have strong, healthy gums and less cavities. Similarly good sleep hygiene is important in determining the quality and quantity of your sleep. Below are guidelines for good sleep hygiene practices. Review these guidelines and evaluate how well you practice good sleep hygiene.

Caffeine: Avoid Caffeine 6-8 Hours before Bedtime
Caffeine disturbs sleep, even in people who do not think they experience a stimulation effect. Individuals with insomnia are often more sensitive to mild stimulants than are normal sleepers. Caffeine is found in items such as coffee, tea, soda, chocolate, and many over-the-counter medications (e.g., Excedrin). Thus, drinking caffeinated beverages should be avoided near
bedtime and during the night. You might consider a trial period of no caffeine if you tend to be sensitive to its effects.

**Nicotine: Avoid Nicotine before Bedtime**

Although some smokers claim that smoking helps them relax, but nicotine is a stimulant. The initial relaxing effects occur with the initial entry of the nicotine, but as the nicotine builds in the system it produces an effect similar to caffeine. Thus, smoking, dipping, or chewing tobacco should be avoided near bedtime and during the night. Don’t smoke to get yourself back to sleep.

**Alcohol: Avoid Alcohol after Dinner**

Alcohol often promotes the onset of sleep, but as alcohol is metabolized sleep becomes disturbed and fragmented. Thus, a large amount of alcohol is a poor sleep aid and should not be used as such. Limit alcohol use to small quantities to moderate quantities.

**Sleeping Pills: Sleep Medications are Effective Only Temporarily**

Scientists have shown that sleep medications lose their effectiveness in about 2 - 4 weeks when taken regularly. Despite advertisements to the contrary, over-the-counter sleeping aids have little impact on sleep beyond the placebo effect. Over time, sleeping pills actually can make sleep problems worse. When sleeping pills have been used for a long period, withdrawal from the medication can lead to an insomnia rebound. Thus, after long-term use, many individuals incorrectly conclude that they “need” sleeping pills in order to sleep normally. Keep use of sleep pills infrequent, but don’t worry if you need to use one on an occasional basis.

**Regular Exercise**

Get regular exercise, preferably 40 minutes each day of an activity that causes sweating. Exercise in the late afternoon or early evening seems to aid sleep, although the positive effect often takes several weeks to become noticeable. Exercising sporadically is not likely to improve sleep, and exercise within 2 hours of bedtime may elevate nervous system activity and interfere with sleep onset.

**Bedroom Environment: Moderate Temperature, Quiet, and Dark**

Extremes of heat or cold can disrupt sleep. A quiet environment is more sleep promoting than a noisy one. Noises can be masked with background white noise (such as the noise of a fan) or with earplugs. Bedrooms may be darkened with black-out shades or sleep masks can be worn. Position clocks out-of-sight since clock-watching can increase worry about the effects of lack of sleep. Be sure your mattress is not too soft or too firm and that your pillow is the right height and firmness.

**Eating**

A light bedtime snack, such a glass of warm milk, cheese, or a bowl of cereal can promote sleep. You should avoid the following foods at bedtime: any caffeinated foods (e.g., chocolate), peanuts, beans, most raw fruits and vegetables (since they may cause gas), and high-fat foods such as potato chips or corn chips. Avoid snacks in the middle of the nights since awakening may become associated with hunger.

If you have trouble with regurgitation, be especially careful to avoid heavy meals and spices in the evening. Do not go to bed too hungry or too full. It may help to elevate you head with some pillows.
Avoid Naps
Avoid naps, the sleep you obtain during the day takes away from your sleep need that night resulting in lighter, more restless sleep, difficulty falling asleep or early morning awakening. If you must nap, keep it brief, and try to schedule it before 3:00 pm. It is best to set an alarm to ensure you don’t sleep more than 15-30 minutes.

Allow Yourself At Least an Hour before Bedtime to Unwind
The brain is not a light switch that you can instantly cut on and off. Most of us cannot expect to go full speed till 10:00 pm then fall peacefully to sleep at 10:30 pm. Take a hot bath, read a novel, watch some TV, or have a pleasant talk with your spouse or kids. Find what works for you. Be sure not to struggle with a problem, get into an argument before bed or anything else that might increase your body’s arousal.

Regular Sleep Schedule
Keep a regular time each day, 7 days a week, to get out of bed. Keeping a regular awaking time helps set your circadian rhythm so that your body learns to sleep at the desired time.

Set A Reasonable Bedtime and Arising Time and Stick to Them.
Spending excessive time in bed has two unfortunate consequences - (1) you begin to associate your bedroom with arousal and frustration and (2) your sleep actually becomes more shallow. Surprisingly, it is very important that you cut down your sleep time in order to improve sleep! Set the alarm clock and get out of bed at the same time each morning, weekdays and weekends, regardless of your bedtime or the amount of sleep you obtained on the previous night. You probably will be tempted to stay in bed in the morning if you did not sleep well, but try to maintain your new schedule. This guideline is designed to regulate your internal biological clock and reset your sleep-wake rhythm.

Sticking to the Changes You Make
It can be difficult to stick to a self-management program. However, it is important to remind yourself that the sleep guidelines have been extensively researched and represent the best science has to offer for conquering a long-term insomnia problem. Literally, thousands of individuals have improved their sleep through following the guidelines. The following points may help you to stick to the guidelines.

1. Find activities to engage in when out of bed during the night.
   - Plan activities to engage in when you are not in bed at night because you can’t fall asleep. These activities should be non-stimulating.
   - Prepare any materials needed to get out of bed (e.g., robe, book, etc.) ready prior to bedtime.

2. Identify cues to determine sleepiness and time to return to bed.
   - Examples of “Sleepy Behavior” include yawning, heavy eyelids, nodding off, etc.
   - Remember that the longer you stay up and the sleepier you are, the quicker you will fall to sleep.
3. Use alarm clock to maintain regular arising time.
   - You may also want to plan social, work or family commitments soon after waking to increase motivation to adhere to arising time.

4. Find competing activities to fight the urge to take a nap before your bedtime.
   - These activities should be physical (e.g., housework, walking) rather than cognitive (e.g., reading) or passive (e.g., watching TV).
   - Examples include: taking a walk, having someone visit in the evening, talking on the phone to a friend, working a puzzle, drawing, etc.

5. Secure support from your spouse/significant others.
   - Typically your bed partner will be deeply asleep and will not notice you getting out of bed.
   - Have friends/family members help you adhere to the sleep guidelines. For example, a family member could play a game with you to help you stay awake until bedtime.

6. Remember the time-limited nature of following these procedures.
   - It usually takes 2-3 months for a sleep problem to get totally better but most people see improvements within 2-3 weeks if they consistently follow the guidelines. Isn't sticking to the guidelines for this short period worth it if your sleep ultimately improves?

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**Sleep Diary Instructions**

In order to better understand your sleep problem and to assess your progress during treatment, we'd like you to collect some important information about your sleep habits.

- Before you go to sleep at night, please answer Questions 1 - 6.
- After you get up in the morning, please answer the remaining questions, Questions 7 - 13.

It is very important that you complete the diary every evening and morning! Please don't attempt to complete the diary later. If you have any difficulties completing the diary, please contact one of the BHP staff members at (210) 670-5968 and we'll be glad to assist you.

It's often difficult to estimate how long you take to fall asleep or how long you're awake at night. Keep in mind that we simply want your best estimates.

If any unusual events occur on a given night (e.g., emergencies, phone calls) please make a note of it on the diary (at the bottom of the sheet).
Below are some guidelines to help you complete the Sleep Diary.

1. **Napping:** Please include all times you slept during the day, even if you didn’t intend to fall asleep. For example, if you fell asleep for 10 minutes during a movie, please write this down. Remember to specify a.m. or p.m., or use military time.

2. **Sleep Medication:** Include both prescribed and over-the-counter medications. Only include medications used as a sleep aid.

3. **Alcohol as a sleep aid:** Only include alcohol that you used as a sleep aid.

4. **Bedtime:** This is the time you physically got into bed, with the intention of going to sleep. For example, if you went to bed at 10:45 p.m. but turned the lights off to go to sleep at 11:15 p.m., write down 10:45 p.m.

5. **Lights-Out Time:** This is the time you actually turned the lights out to go to sleep.

6. **Time Planned to Awaken:** This is the time you plan to get up the following morning.

7. **Sleep-Onset Latency:** Provide your best estimate of how long it took you to fall asleep after you turned the lights off to go to sleep.

8. **Number of Awakenings:** This is the number of times you remember waking up during the night.

9. **Duration of Awakenings:** Please estimate how many minutes you spent awake for each awakening. If this proves impossible, then estimate the number of minutes you spent awake for all awakenings combined. Don’t include your very last awakening in the morning, as this will be logged in number 10.

10. **Morning Awakening:** This is the very last time you woke up in the morning. If you woke up at 4:00 a.m. and never went back to sleep, this is the time you write down. However, if you woke up at 4:00 a.m. but went back to sleep for a brief time (for example, from 5:00 a.m. to 5:15 a.m.), then your last awakening would be 5:15 a.m.

11. **Out-of-Bed Time:** This is the time you actually got out of bed for the day.

12. **Restedness upon Arising:** Rate your restedness using the scale on the diary sheet.

13. **Sleep Quality:** Rate the quality of your sleep using the scale on the diary sheet.
## Sleep Diary

Name: _____________________________

Week: _____________ to ______________

(Beginning date) (Ending date)

### Example

#### Fill in the Day of the Week above each column

<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon.</td>
<td>I napped from ____ to ____ (note times of all naps).</td>
<td>2:00 to 2:45 pm</td>
</tr>
<tr>
<td></td>
<td>2. I took ____ mg of sleep medication as a sleep aid.</td>
<td>ProSom 1 mg</td>
</tr>
<tr>
<td></td>
<td>4. I went to bed at ____ o’clock.</td>
<td>10:30</td>
</tr>
<tr>
<td></td>
<td>5. I turned the lights out at ____ o’clock.</td>
<td>11:15</td>
</tr>
<tr>
<td></td>
<td>6. I plan to awaken at ____ o’clock.</td>
<td>6:15</td>
</tr>
<tr>
<td></td>
<td>7. After turning the lights out, I fell asleep in ____ minutes.</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>8. My sleep was interrupted ____ times (specify number of nighttime awakenings).</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>9. My sleep was interrupted for ____ minutes (specify duration of each awakening).</td>
<td>20 30 15</td>
</tr>
<tr>
<td></td>
<td>10. I woke up at ____ o’clock (note time of last awakening).</td>
<td>6:15</td>
</tr>
<tr>
<td></td>
<td>11. I got out of bed at ____ o’clock (specify the time).</td>
<td>6:40</td>
</tr>
<tr>
<td></td>
<td>12. When I got up this morning I felt ____ .</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(1 = Exhausted, 2 = Tired, 3 = Average, 4 = Rather Refreshed, 5 = Very Refreshed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. Overall, my sleep last night was ____ .</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(1 = Very Restless, 2 = Restless, 3 = Average, 4 = Sound, 5 = Very Sound)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**