

# Refresh

The science of sleep for optimal performance and well being



**Unit 3: Sleeping Less to Sleep More?**

Remember the bio babble from last week about sleep? The basic gist was: The longer you're awake, the more intense sleep drive becomes and the more likely it is that you'll want to crash. Your internal sleep clock will take care of your sleep needs under normal conditions, as long as other circumstances don't get in the way. Other circumstances include: thinking about that girl on the second floor, thinking about your biochem test or thinking about that girl on the second floor's biochem test (which may mean you're a little too into her).

Unfortunately, if you are frequently having difficulty sleeping, worrying about sleeping may be one of the things keeping you awake. If this is your deal, the quickest tip for getting to sleep (without meds) is to create more of something called sleep debt, in a thoughtful controlled way. This may be the only kind of debt you actually try to create (but don't worry, there's no interest). In order to break the cycle of insomnia, you may need to be willing to restrict your sleep to a regular shorter block of time at first.

If you sleep less than 90% of the time you spend trying to sleep, this section may be especially important.

A word of caution:

If any of the following apply to you, do not attempt this chapter without the supervision of a health care provider:

- You have Bipolar Affective Disorder
- You have a family member with Bipolar Affective Disorder
- You have had a period of time lasting one week or longer during which you felt euphoric, felt like you had special abilities other people don't have, or felt persistently irritable
- Within the last two months you started a medication to treat depression or anxiety
- You frequently have trouble staying awake while driving or performing other activities in which drowsiness may have fatal consequences
- You have a long road trip coming up within the next three weeks and you have to be the driver, or you have to or perform other activities in which drowsiness may have fatal consequences

If you can safely say that none of the above applies to you, you can begin this powerful technique for breaking the pattern of insomnia. However, if you find that you begin to have an abnormally elevated or irritable mood, feel like your thoughts are racing, or feel like you do not need more than a few hours of sleep every night, stop this procedure and contact your health care provider.

## **How to break the cycle of sleep trouble: Sleep Restriction**

1. Determine the average number of hours you sleep at night:
  - A. Using your sleep log, add up the total number of hours you have slept during the last 7 nights. If a given night was atypical for you (for example, if you were taking a red eye flight) do not include that night in your computation.
  - B. Divide the total by 7 (or 6 if you deleted one night). Here's an example: Dave slept a total of 45 hours over the last 7 nights. Dividing by 7 yields an average nocturnal sleep time of approximately 6.4 hours.
2. Calculate the number of hours you should schedule for sleep:
  - A. Round your estimated average number of sleep hours up to the nearest 1/4 hour. Then add another 1/2 hour. Dave's average, rounded up to the nearest 1/4 hour is 6.5 hours. Adding another 1/2 hour results in a calculated sleep period of 7 hours.
3. Determine your time in bed:
  - A. Remember that last week you thought about establishing a daily wake-up time. The closer you are able to match your scheduled sleep time with your current biologic clock, the faster your sleep will improve. The important thing is to schedule a sleep period every night to allow for the number of hours you calculated above, and to have nearly the same morning wake up time every morning (or as close as you can get).
  - B. Starting with your morning wake-up time, count backwards by the number of sleep hours you calculated above to determine your bedtime.
4. Making your new sleep schedule work for you:
  - A. You should go to bed when you feel sleepy or at your scheduled bedtime, whichever comes **later**.
  - B. Your rise time should be fixed. Even if you had difficulty sleeping at night, set an alarm and get out of bed shortly after it rings.

- C. Do not spend fewer than six hours in bed per night. If on any given night you are waiting to go to bed until you feel tired and have only six hours before your scheduled wake-up time, go to bed anyway; don't try to sleep, just relax and allow your brain to sleep if it wants to. If you consistently follow your schedule, waking up at the same time every morning, you will most likely begin feeling sleepy closer and closer to your bedtime.
- D. If you do not feel sleepy at your bedtime, make sure you allow yourself at least one hour before bedtime to relax and unwind from the day's stresses. Avoid studying (yay!), playing crazy video games or doing anything that's going to get your heart rate up.

Let's get back to our friend Dave. Dave decided that he should schedule a time period in bed of 7.0 hours. He also found that, on average, he falls asleep between 11:00 PM and midnight. His earliest class is a Monday, Wednesday, and Friday chemistry class at 8:00 AM. If he wakes up at 7:00 AM, he has enough time to get ready for the day and make it to his 8:00 class. To motivate himself to stick with a 7:00 AM rise time, he decided that on days he doesn't have early morning classes he will go to the gym with Andrea. (It doesn't hurt that Andrea looks like Angelina Jolie!)

Following a sleep schedule will help you train yourself to go to sleep at a regular time, rather than with worrying about getting to sleep and feeling anxious about not sleeping. As long as you are allowing yourself a consistent opportunity to sleep every night and you're getting out of bed every morning at the same time, you probably don't need to worry about how much sleep you get during any given night. The less you sleep tonight, the more sleep debt you will have tomorrow night, and the more you will sleep then. As you allow yourself a regularly scheduled opportunity to sleep, in time, your brain will take care of sleep for you.

The first few days may be rough, particularly if you are trying to change the time you usually wake up. Soon your body will adjust. Consider it a self-imposed "Daylight Savings Time".

If you find yourself having trouble sleeping consistently during the first few days of your new schedule, it may actually be a good thing. This will increase your sleep debt and help you adjust to your schedule faster. You'll soon notice that you're falling asleep more quickly in bed and will begin to feel more refreshed in the morning. Say goodbye to sleepless hours in bed listening to your roommate snore; this new strategy teaches your mind that the bed is for sleeping, not for worrying, counting sheep, or praying for a new roommate.

Even though you are spending less time in bed, you might feel more refreshed in the morning because your sleep will be more consolidated. You'll be able to sleep for a greater proportion of the time you're spending in bed. In spite of an improvement in sleep quality, you may still feel tired during the day. If after two weeks you are still tired, you should add  $\frac{1}{2}$  hour to your scheduled block of time in bed. You will continue to add small bits of time every week, if needed, until your sleep time is optimal for you. First you will shorten your sleep to improve sleep quality, then you will be able to gradually increase sleep time as needed.

**Practice suggestions:**

1. Follow the above procedure and begin establishing a consistent specific sleep schedule using these recommendations. Follow your new sleep schedule during the next 14 days.
2. Continue to use the 30 second sleep diary. Don't forget to save your sleep logs. You'll continue to use them to make small adjustments to your sleep schedule.

## **Thirty Second Sleep Diary:**

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Time you went to bed last night:							
Time you got out of bed this morning:							
Number of minutes you estimate it took you to fall asleep last night:							
Number of times you remember waking up in the middle of the night:							
Total number of minutes you estimate you were awake in during the night:							
Total amount of sleep you had last night:							
Number (none = 0) alcoholic beverages you consumed before going to bed last night:							
Did you take any sleeping medication last night (record "yes" or "no")? If yes specify.							
How much did you enjoy sleeping last night? 0            1            2            3 Not at all                                  Very much							
How refreshed do you feel this morning? 0            1            2            3 Not at all                                  Very much							

Adapted from Morin, C.M., and Espie, C.A., *Insomnia: A Clinical Guide to Assessment and Treatment*, Springer 2004.