# How to Snooze: Preparing for Sleep Wiliam Bergquist, Ph.D. 

Many of the "recipes" for successful sleep focus on broad issues-pathways to which we have attended in previous essay. These are matters regarding healthy habits--such as exercise, diet and stressreduction. There is a second set of pathways that bring us much closer to bedtime. These are the pathways that we may choose to take in preparation for sleep.

In a CNN article, Sandee LaMotte (2023) writes about living 5 years longer with high quality sleep. She cites research done at Harvard University regarding this important relationship. Furthermore, LaMotte notes that preparation for sleep is an invaluable way to ensure this high quality: "Set up a sleep routine, with no [computer] blue lights or distractions at least an hour before bedtime. Try meditation, yoga, tai chi, warm baths-anything that relaxes you is great." What are some of the "anything" initiatives that one might take in preparing for sleep?

I provide some suggestions in this essay and begin by offering a chart summarizing findings from my Pathways to Sleep project. This chart lists some of the sleep preparation pathways, as well as ratings by experts and users, as well as costs and accessibility. In each case, a rating of " 3 " is high and a rating of " 1 " is low. $A$ " $v$ " indicates that this pathway is controversial (wide variation in ratings-high variance score).

Component Two: Sleep Preparation

| Pathway | Sub- <br> Pathway | Expert <br> Rating | User <br> Rating | User <br> Cost | User <br> Access |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Avoid Extended Naps <br> During the Day |  | $\mathbf{2}$ | $\mathbf{2 . 7 5 v}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Reading Before <br> Bedtime |  | $\mathbf{3}$ | $\mathbf{2 . 7 5}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Relaxing Activities <br> Before Bedtime | 2.75 | $\mathbf{1}$ | $\mathbf{1}$ |  |  |
| Temperature <br> Transition: From Hot <br> (Environment) to <br> Cold (Bedroom | Hot Bath or Hot <br> Shower | $\mathbf{2}$ | $\mathbf{2 . 7 5 v}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Temperature <br> Transition: From Hot <br> (Environment) to <br> Cold (Bedroom) | Hot Tub or Spa | $\mathbf{2}$ | $\mathbf{2 . 5 0}$ | $\mathbf{3}$ | $\mathbf{2}$ |
| Temperature <br> Transition: From Hot <br> (Environment) to <br> Cold (Bedroom) | Sauna | $\mathbf{2}$ | $\mathbf{1 . 7 5 v}$ | $\mathbf{3}$ | $\mathbf{2}$ |


| Temperature <br> Transition: From Cold <br> (Outdoors) to Warm <br> (Bedroom) |  | $\mathbf{2}$ | $\mathbf{2 . 5 0 v}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Focal Heat | Warm/hot <br> compact over <br> face/head | $\mathbf{2}$ | $\mathbf{1 . 2 5}$ | $\mathbf{1 . 5 0}$ | $\mathbf{1 . 5 0}$ |
| Focal Heat | Hot patch/hot <br> pad/hot water <br> bottle | $\mathbf{2}$ | $\mathbf{1 . 7 5}$ | $\mathbf{1 . 5 0}$ | $\mathbf{1 . 5 0}$ |
| Soaking Feet | $\mathbf{1 . 5 0}$ | $\mathbf{1 . 2 5}$ | $\mathbf{1}$ | $\mathbf{1}$ |  |
| Appreciative <br> Reflection | Positive/hopeful <br> thoughts and <br> feelings (3 <br> positive things <br> that happened <br> during the day | $\mathbf{2}$ | $\mathbf{2 . 5 0}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Appreciative <br> Reflection | "Count Your <br> Blessings <br> Instead of <br> Sheep" | $\mathbf{1 . 5 0}$ | $\mathbf{2 . 5 0}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Appreciative <br> Reflection | Say Something <br> Positive to Your <br> Significant <br> Other Before <br> Going to Bed | $\mathbf{2}$ | $\mathbf{2 . 5 0}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Achievement: Check <br> list for the day | Complete the <br> List Before <br> Going to Bed | $\mathbf{2 v}$ | $\mathbf{1 . 7 5 v}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Achievement: Check <br> list for the Day | Set Aside the <br> List Before <br> Going to Bed | $\mathbf{2 v}$ | $\mathbf{1 . 7 5}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Achievement: Check <br> list for the Day <br> Before Going to Bed <br> (Avoid Having to Get | Prepare a List <br> for Tomorrow <br> Before Going to <br> Bed | $\mathbf{2 v}$ | $\mathbf{1 . 7 5}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Abstain from <br> Activities Before <br> Going to Bed | Don't Watch TV | $\mathbf{3}$ | $\mathbf{1 . 7 5 v}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| Abstain from <br> Activities Before <br> Going to Bed | Don't Work on <br> the Computer <br> or Engage Social <br> Media | $\mathbf{3}$ | $\mathbf{2 . 7 5 v}$ | $\mathbf{1}$ | $\mathbf{1}$ |
| $\mathbf{1}$ |  | $\mathbf{1}$ |  |  |  |


| Up in Middle of the <br> Night) |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Food to Eat $1 ⁄ 2$ Hour <br> Before Going to Bed: <br> Containing Melatonin | Cherries | 1.50 | 1.25 | 1.25 | 1 |
| Food to Eat $1 / 2$ Hour <br> Before Going to Bed: <br> Containing Melatonin | Pineapple | 1.50 | 1.25 | 1.25 | 1 |
| Food to Eat $1 ⁄ 2$ Hour <br> Before Going to Bed: <br> Containing Melatonin | Walnuts | 1.50 | 2.75 | 1.25 | 1 |
| Food to Eat $1 / 2$ Hour <br> Before Going to Bed: <br> Containing <br> Tryptophan | Bananas | 1.50 | 1.25 | 1.25 | 1 |
| Food to Eat $1 ⁄ 2$ Hour <br> Before Going to Bed: <br> Containing <br> Tryptophan | Cereal and Milk | 1.50 | 1.25 | 1.25 | 1 |
| Food to Eat $1 / 2$ Hour <br> Before Going to Bed: <br> Containing <br> Tryptophan | Cheese and <br> Crackers | 1.50 | 1.75 | 1.25 | 1 |
| Food to Eat $1 ⁄ 2$ Hour <br> Before Going to Bed: <br> Containing <br> Tryptophan | Hot Chocolate <br> or Warm Milk | 1.50 | $1.75 v$ | 1.25 | 1 |

Each of these pathways can be assigned to one of four groups: (1) activities before bedtime, (2) transitions to sleep involving temperature change, (3) transitions to sleep involving cognitive and affective change, and (4) food! I provide a summary description of each of these pathways as well as considering their effectiveness (based on both expert assessments and the assessment of those who have embarked on each pathway. I begin with pre-bedtime activities.

## What Do We Do Before Going to Bed?

There are many things we can do before going to sleep that will make it easier to fall asleep once we turn off the lights and settle in for a good night of sleep. At the very least, our pre-bedtime activities should not be too active! Transition is the key. We must slow down, focus our mind and body, take a deep breath, savor pleasant thoughts, and make use of the bathroom!

## To Sleep or Not to Sleep: That is the Question!

The first and most obvious question to ask regarding activities before going to bed concerns the very act of going to bed itself. When should I snuggle in for a night of sleep? Many of the experts say that you should only go to bed when you are tired. Experts at the Harvard Division of Sleep Medicine (2019) put it quite plainly: "go to sleep when you're truly tired. Other experts (and sometimes the same experts) say
that you should establish a routine and go to bed (whenever possible) at the same time each night. The Harvard experts (2019) assert that:

Going to bed and waking up at the same time each day sets the body's "internal clock" to expect sleep at a certain time night after night. Try to stick as closely as possible to your routine on weekends to avoid a Monday morning sleep hangover. Waking up at the time each day is the very best way to set your clock, and even if you did not sleep well the night before, the extra sleep drive will help you consolidate sleep the following night.

I do have one perplexing and perhaps disturbing question to ask of our experts at Harvard: what if your level of fatigue changes from day to day? We might be "ready for bed" at an earlier hour if we have spent the afternoon working in our garden, playing several sets of tennis or attending to a sick child. On the other hand, if we have been watching TV all evening or had an extended nap in the afternoon, fatigue might not be anywhere near us and our body. What should we do? No easy answer-though the worst decision would be to settle down for a night of sleep only to remain alert and restless.

There is also the matter of too much sleep. We can choose to go to bed at a very early hour and push ourselves to remain in bed late in the morning. Craig $\operatorname{Heller}(2013$, p. 157) puts it this way:

Although it might seem counterintuitive, sleep only as much as you need to feel rested; do not oversleep. You should not spend an excessive amount of time awake in bed; you want to associated being in bed with sleep.

Our body needs only a certain amount of sleep and can react badly to too much sleep as well as too little sleep. It will tend to "readjust" our schedule of sleep and wakefulness by not "allowing" us to fall asleep when we should remain awake. Apparently, we need long period of wakefulness to achieve other important biological functions (eating food, exercising, tending to other bodily functions)-and equally as important interpersonal functions (caring for other people, being cared for by other people, bonding and loving other people). As Matthew Walker (2017, p. 264) notes in Why We Sleep:

Wakefulness in the correct amount is evolutionarily adaptive, as is sleep. Both sleep and wake provide synergistic and critical, though often different, survival advantages. There is an adaptive balance to be struck between wakefulness and sleep. In humans, that appears to be around sixteen hours of wakefulness and around eight hours of total sleep, for an average adult.

What is the right amount for each of us? The scientists propose (as they often do) that there is a curvilinear answer to this question: "We can get too little sleep and too much sleep". They offer a second, common (and often frustrating) answer: "It all depends." As I have often done in previous essays, I suggest that we become our own sleep scientists. We test out differing amounts of sleep and determine what is the right amount for us, based on our assessment of such matters as cognitive functioning, emotional stability - and an overall sense of personal wellbeing. We might even ask the significant people in our life to assess which person they like most. Is it the person who gets 7 hours of sleep or the one who gets 9 hours of sleep?

Finally, there is the matter of our plans for sleep running aground. We go to bed but can't fall asleep. We return to our experts at the Harvard Division of Sleep Medicine (2019): "Struggling to fall [a]sleep just leads to frustration. If you're not asleep after 20 minutes, get out of bed, go to another room, and o something relaxing, like reading or listening to music until you are tired enough to sleep." In many ways
this advice aligns with that given in previous essays regarding multiple sleep segments. Rather than struggling to fall back asleep in the middle of the night, get up and so something soothing and rewarding before returning to bed. The Harvard folks are saying something similar about failing to fall asleep at the beginning of the night.

## To Nap or Not Nap: That is the Question!

The second activity (or non-activity) to consider concerns previous sleep during the day. Should we take a nap in the afternoon? That is a question that is often broached. The answers are contradictory and often of little use. In some cultures, the afternoon nap (often called a "siesta") is commonplace. Shops close down for several hours and everyone heads off for a brief period of sleep. This practice is particularly common in countries near the equator where daytime temperatures can remain quite high. A heavy dose of humidity can also make retreat to a cool bedroom or hammock on a shared porch that much more attractive. Furthermore, we often find that the nap time is balanced by later dinner times and cooler late evenings spent in conversation and activity. In many instances, we should note, this practice of taking a nap is in decline as those living in these cultures become more "Westernized" and must adjust to global business practices.

This is all well-and-go. However, is the afternoon nap a good or bad thing for those of us living in more temperate climates (at least until climate change takes full effect)? As I have mentioned, the responses to this question are not consistent. At the very least, the answer is "It depends." For instances, as we grow older, the nap can be of increasing value. Naps can also be of value for some people as a way of managing stress-much as in the case with meditation practices and mindfulness. Stress-reduction, however, requires that we truly "get some rest" rather than lie there ruminating on the problems we have encountered. Naps are also to be avoided if the stress is associated with depression. We know that frequent naps can not only be a sign of depression but also a contributor to the depressive inability to get up and do something.

Offering some "surprising" reasons why we can't fall asleep, Jessica Migala (2019) provides an article in the widely read AARP Bulletin in which one reason is dramatically titled "Nap Insomnia". She has this to say about napping:

The most common time of the day when people get sleepy is between 2 and 3 in the afternoon, when we experience a natural dip in energy. . . This may prevent you from feeling tired at bedtime; then, spending too much time lying awake can contribute to insomnia. If your afternoon energy tends to be low, try scheduling something active for that time. It will help you feel refreshed, and research shows that exercisers have better sleep quality, too - so it's a double bang for your buck.

Does this make our colleagues living near the equator somehow wrong about taking a siesta? Does Jessica Migala hold the answer? Do we try out the hammock or the treadmill during the mid-afternoon? As has been the case with previously identified pathways, I suggest that you become a sleep scientist. Try out a nap at one time and/or one place in the afternoon and then at another time or place. How does it impact on you sleep in the evening? Try out several different ways of falling asleep when taking the nap (such as some of the other pathways mentioned in this essay). What works for you regarding setting aside waking concerns when taking the nap? If you are not used to taking naps, then you might have to do something "special" to get ready for this daytime sleep.

At the very least, you will probably want to darken the room in which you are taking the nap and will want to be sure you are not interrupted by the many sounds and intrusions to be found in daytime life. I would also suggest that you reflect back on your childhood-when you probably did take a nap. Is there anything to learn from this childhood experience. One of my colleagues always sleep under a comforting quilt as a child. He has found a quilt now to nap with. Another colleague curled up with several stuffed animals as a child; she now places big soft pillows all around her when taking a nap.

## Relaxing Activities

What is relaxing for you? Perhaps reading in bed or saying a prayer. What about watching a late-night talk show or viewing one or two episodes of a multi-part series on Netflix or Prime. Perhaps an end-ofthe day news program. As in the case of naps, the immediate and conventional response is: NO TV and no computer time or social media time! However, this is where a bit of self-research can be helpful. Try out one or two options and see how it works for you. The one recipe for sleep "disasters" is to force yourself to go to sleep with full resentment about being deprived the joy of watching an episode of that wonderful mystery series or that relaxing and laugh-filled talk show. We might "have to" connect with our network before heading off to bed. After all, this "forbidden" delight is a just "reward" after a full day of labor. Deprivation never works-so enjoy yourself. Paradoxically, you might find that you are falling asleep while trying to stay awake watching this forbidden delight (see our analysis of paradoxical pathways in a later essay in this series).

In general, our Pathways to Sleep study shows that reading before going to bed is often a "winner." And for some reason, it is not forbidden in our society. However, there is one absolute winner that received the highest marks of any pathway we studied. This is the matter of going to the bathroom prior to settling in for a good night of sleep. We don't need to be sleep scientists to recognize how important this pathway is for a good, uninterrupted night of sleep. While bathroom duties are of greatest importance for those of us who are entering the final decades of our life, the urge to use the bathroom can disrupt one's sleep at any age.

## Transition to Sleep

The act of falling asleep requires some major changes in our biology. Our body must shift gears-as does our brain. It is not just a matter of stepping on the brakes. This breaking can be quite damaging if it is not accompanied by some transitions. In this study, we have identified two kinds of transitions. There are transitions related to the environment outside our body. These are temperature changes. There are also transitions related to the environment inside our body (and mind). These are changes in cognition (thinking) and affect (feeling).

## Temperature Change

This third set of pathways might be the most interesting and least often acknowledged of the many pathways we have studied. We know that our body adjusts when we move from an environment of one level of heat or cold to another level of heat or cold. For those of us who grew up as children in a world of chilly winters, there was often the experience of growing suddenly sleepy after coming into a warm home after several hours of playing out in the cold. Conversely, as adults we might have become sleepy when coming into a relatively cool house after spending time in a hot tub or sauna. There is even the drowsiness that follows a lovely time spent in a hot bath or taking a hot shower.

As user ratings from our survey reveal, both the transition from cold to hot and from hot to cold can serve as an effective prelude to sleep. While neither of these transitions are for everyone, they can be of great value to many of us. One of my colleagues has a hot tub just outside her bedroom. She and her partner spend time in this hot tub every evening (except during the summer). It is then off to bed. Another of my colleagues opens all of the windows in his bedroom-even during the dead of winter. He leaps into his bed (which is covered with a heavy quilt) and settles in for a "long winter's night" (to quote that famous Christmas story). Yet another colleague reports leaping into the chilly lake beside his summer cottage before going to bed. For each of us, our own best practices. In this regard, we can once again be experimenters of our own sleep.

## Cognitive and Affective Change

"If you're worried and you can't sleep, count your blessings instead of sheep." Is there any truth to this old, worn out saying? Can we actually set up our mind and emotions for relaxation, decluttering our brain, draining away our worries, and just settling down for a good night of sleep? The experts don't think there is much we can do about these matters and our user ratings tend to be quite scattered (high variance scores). There is some support for appreciative reflection ("counting your blessings") but not for "Instead of counting sheep" (perhaps too "cheesy" a statement).

It is a matter of focusing in on a few things that went well during the day-but not too much reflection on "why" they went well (this gets us into a state of cognitive arousal). Sharing our appreciation with someone important in our life (such as the person with whom we are sleeping) might do the trick. Maybe they offer us a gentle massage, or at least a warm embrace before we go to bed. Scratching of our dog's ear might be helpful as might a brief snuggle with our cat.

There is also the matter of how we "feel" about the fabrics that touch us. We are comforted not only by the touch of another person, but also the "touch" of our immediate sleep environment. Perhaps soft pajamas help--along with several fluffed-up pillows. We find benefit from some comforting sheets and blankets-be they flannel or silk. All of these "feel good" touches are beautifully complimented by the inviting cold room that I have described. Cognitive changes tend to follow affective changes, and affective changes are often attuned to touch and warmth. Our feelings are "softees" (easily influenced) when it comes to softness.

Then there is the matter of Hardness. Before falling asleep, Type A folks often want to review their checklist of things to do from the previous day or for the upcoming day. A few people found either of these reviews to be relaxing and conducive to falling asleep. For many other respondents, this list review is the very last thing they want to complete before going to sleep. In many cases, however, these listaversive folks do keep a notepad or set of sticky notes beside their bed in case they absolutely can't fall asleep without recording something that must be accomplished "tomorrow." Setting aside a completed list or at least one note might indeed be a source of stress-reduction and sleep-inducement.

We turn to Margarita Tartakovsky (2018) for her thoughtful recommendations regarding lingering worries:

We tend to take our daily troubles to bed with us. If you're experiencing anxiety during the day, it's likely that this angst is affecting your sleep. "Many of my patients have daytime anxieties with work and their family which they have not resolved in the daytime." [Mary] Rose [a behavioral sleep specialist] said. At first, though, your worries might not be so obvious. "Often
patients report that they are thinking about unimportant things while try to sleep - but when they reconsidered and monitor their thoughts more proactively-they often discover than large issues they have not yet resolved are at play," she said. So try to dig deeper to "identify and manage worrisome thoughts that may be magnifying nighttime anxiety and inability to wind down."

Does this mean doing some important cognitive work before going to bed. This seems to be the case; however, it is also important to mention that this heavy "cognitive lifting" prior to bed can lead to an inability to fall asleep. I suggest that this work on anxiety should be done well before going to bed, with some distracting or relaxing activities and perhaps a warm bath or time in a hot tub intervening between the anxiety-reducing task and bedtime.

## What to Eat: That is the Question!

With this cluster of pathways comes a massive volume of information, speculation, hype, and evening recipes. We collected a wide array of options and asked for user ratings. Nothing really stood out as a food-for-sleep as determined by either the experts or users. Advertisement might assure us that sleep will come easily after a late-night snack consisting of XYZ—but few of us are convinced.

Some of our respondents like to savor a cup of hot chocolate in the evening (even though chocolate is not supposed to be sleep-enhancing). For a few others, it is a sip of hot milk or some chamomile tea. Cheese and crackers sometimes do the trick; however, most fruits are found to be of little value. Walnuts do rate high among users-and perhaps should be tried by those of us who have avoided them in the evening. Yet, again, it is a matter of being a self-researcher regarding food-based sleep pathways.

We might be even more ambitious. Editors of the AARP Bulletin (2019) offers some dietary advice about boosting our health just before going to bed: "Enjoy a nice piece of fish with a side of brussels sprouts. The omega-3 fatty acids in fish may have properties that contribute to your brain's health. And brussels sprouts are packed with glucosinolates, compounds that could help to protect against inflation." This is all well and good - but do we rest easy with the taste of fish and sprouts lingering in our mouth. This is certainly better for us than the taste of chocolate-but perhaps not at delicious or comforting before we sink into sleep.

## Conclusions

When all is said and done, the primary message to be delivered in this essay is that we need to be thoughtful and intentional about our preparation for sleep. We need to be sleep scientists who systematically study our own sleep behavior rather than relying on outside experts who aren't acquainted with our personal behavior and biology. We all know that bathroom time is critical-but what about temperature changes and finding ways to "wind down" after a stressful day of work? Which foods make us sleepy and which keep us awake? Advertisements have little knowledge of the unique way in which food impacts our preparation for sleep.

We also need to reflect and potentially experiment with naptime during the day. For many of us, the matter of taking a nap is moot given our work schedule during the day. Perhaps a nap during the weekend-but does this really make sense since we are not accustomed to breaking up our day with sleep. We could always move to a society in which siestas are common-but this is quite a bit of
sacrifice for just a few minutes of extra sleep every day! We might instead want to concentrate on preparation for a "long winter's night" (even when it is not winter).

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