

# **Pathways to Sleep I(d)—From Health to Sleep: The Mindfulness Pathways**

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Mindfulness is one of the most widely promoted pathways to sleep being touted over the past five years. Mindfulness is clearly the “new wave” among sleep pathways. It seems that mindfulness cures every health and mental health problem. Advocates suggest that this practice can be an incredibly powerful tool in the treatment of mental health disorders, and cancer, as well as cardiovascular conditions. It might also be an important strategy, as we shall note shortly, in our efforts to reduce negative stress. Advocates for mindfulness suggest that this practice plays a vital role in helping us prepare for an evening of sleep (even if practiced in the morning) by creating directed and focused attention on the present experience—which, in turn, yields many of the direct and indirect health and sleep benefits that we identified in the previous essay regarding physical activity.

While research findings regarding the impact of mindfulness on sleep are mixed, it is clear that mindfulness does enhance (at least temporarily) our capacity to be attentive to our internal psychological and physical state. This attentiveness might, in turn, help us better prepare for sleep and adjust our behavior when in bed to maximize physiological conditions for sleep. Some research suggests that mindfulness practices influence neuro-functioning in certain areas of the brain (such as the anterior cingulate cortex, insula and frontal-limbic network that, in turn, influence our capacity to fall asleep and remain asleep – however there is at best a very indirect impact of mindfulness on the neurobiological aspects of sleep). So, what are we left with? Is mindfulness just a contemporary craze that will soon fade away, like Geritol or the XYZ Fast-Action Diet?

## **Mindfulness for Higher Purposes**

We would suggest that mindfulness is not just a fad. Even if it is a practice that has no direct impact on sleep, mindfulness should be considered as part of a healthy lifestyle because it is often

intended for an even higher purpose. While there is a rather large suite of tools and techniques engaged in achieving mindfulness, the mindfulness process is considered not just a technique and tool to promote high quality sleep and overall improved health. Mindfulness is often engaged for a higher-order purpose: clarity of thought, management of emotional states or even greater enlightenment and wisdom. Compared to mindfulness, our previous pathways to sleep (including stress-reduction) seem to be rather mundane. The other component one pathways are almost exclusively about health. The stress-reduction pathway is primarily in the business of treatment and amelioration. It would be nice if I could get enlightened when exercising or attempting to reduce stress, but I will be satisfied short-term if I can just feel a little bit better and can quit biting my nails or jugging down one more can of beer.

Mindfulness, on the other hand, is about these higher-order things. This pathway is not just about reducing a state of anxiety or stress—though this might be one of the outcomes. Ideally, when mindfulness and the many ways it is practiced (such as through meditation) are consistently engaged, there will be less anxiety and less stress in the life of the practitioner; however, mindfulness is ultimately in the business of overall body/mind/spirit improvement (an important concept to which we shall turn shortly).

Drawing this all-too-simplistic distinction between mindfulness and stress-reduction to a close, we will turn to a brief analysis of how the mindfulness pathways leads specifically to high quality sleep. There are obviously many different mindfulness practices and a long, historical foundation laid in Eastern and some Western philosophical and spiritual traditions for specific practices. Probably the simplest description of mindfulness is that it is a practice that involves controlled breathing, usually engaged with the practitioner assuming a specific pose (such as sitting in a straight-back position). Various forms of body scan are often engaged (with the practitioner focusing systematically on various bodily functions) and particular attention is paid to sounds in the environment as well as the practitioner's own feelings and images. We will not attempt to portray any of these foundational principles. We will instead focus on ways that mindfulness facilitates high quality sleep.

## **Sleep and the Mind-Body-Spirit Connection**

As we begin this brief examination of the role played by mindfulness in bringing about high-quality sleep, it is important to note the intimate connection between studies of

sleep and studies of the mind, our bodies –and ultimately the human spirit. As has been and will continue to be a refrain in this series of essays on sleep, everything is connected to everything else. High quality sleep requires the alignment of and cooperation between multiple pathways. A great bed doesn't do it nor does a dose of some sleep aide. A lot has to occur at the same time.

In recent years, a substantial shifting of attention has occurred regarding what is often called: “the Mind Body Spirit Connection.” This involves the crossing of significant boundaries between psychology, biology and spirituality. It also involves a crossing of the Pacific Ocean. West is meeting East. Buddhism dances with Judaism. Psychotherapy interweaves with the practices of Yoga. Stress reduction strategies are infused with the practices of meditation. The holistic health perspectives of Vedanta India complement the healthy lifestyle perspectives that drive the formulation of integrative medical practices in North America. At the heart of the new alliances are four closely related practices: mindfulness, meditation, guided imagery and visualization. Each of these practices can serve as a valuable pathway to high quality sleep.

### **Attention and Sleep**

There is something more that occurs with mindfulness—something that goes beyond the impact found with physical activity. The connection between our minds and our bodies is something we can instinctively feel. But how much attention do we pay to our bodily sensations from moment to moment? To truly understand our own emotional lives and those of the people around us, we need a high level of awareness. This awareness is achieved through the practice of mindfulness and the development of body intelligence.

As we have already noted attentiveness might be the key factor when it comes to the role played by mindfulness as a pathway to sleep. Specifically, with physical (and psychological) awareness comes three important outcomes that relate directly (or indirectly) to sleep quality. First, with mindfulness we are more likely to be aware of the areas of our physical body and biological functioning that need most attention. With mindfulness, we are listening to our body—and can more readily attend to the additional work that is needed. If we are healthier and our bodies are “in tune”, then we are likely to have a better night of sleep.

Second, with mindfulness comes the capacity (and skill) needed to relax and prepare for sleep. Mindfulness (and more specifically meditation and related practices) enable us to slow down our heart rate, reduce muscular tensions throughout our body (including our jaws and neck which are major contributors to our experience of physical and emotional tension). In other words, we can systematically turn off our sympathetic system and turn on our parasympathetic system—this switching being critical in our ability to fall asleep.

### **Brain Waves**

There might be a third outcome—but it is still somewhat speculative. The brain waves that are common during mindfulness (and particularly meditation) are quite similar to those found during the alpha stage of sleep. Is mindfulness, and specifically meditation, a substitute for sleep?

Probably not. But this is a seductive idea for those “control freaks” who want to manage their sleep—though it is ironic that those folks who are all into control are often those that have the most problem in meditating or engaging in other forms of mindfulness. Nevertheless, the similarity between mindfulness and alpha sleep might hold an important key to discovering a pathway to sleep. Meditation and the production of alpha waves while still awake might help to prep us for sleep—or at least specific stages of sleep.

Given that we tend to move (at least briefly) through alpha sleep on the way (hopefully) down to deeper stages of sleep, the training of us in the generation of alpha-wave states of consciousness might be of direct assistance in our movement to sleep. We might be entering a state of what we would label “mini-mindfulness” when we are falling asleep – a state that is called “hypnogogic” (when we often experience diffuse ideation and distorted bodily images). We don’t know much about hypnogogic sleep or its relationship with mindfulness – this relationship might be worth further exploration. We suspect that most of the gurus of mindfulness would not like to think that their practices relate in some way to the much messier hypnogogic state. This latter state might be considered evidence of failed mindfulness when we are falling asleep rather than being mindful. On the other hand, it is useful to consider at least the possibility that some kind of “mini-mindfulness” practices just before going to bed might be of value. I will be considering some of these practices when considering the second component (getting ready for sleep).

## The Mindfulness Partners

The practices of mindfulness have many Mind-Body-Spirit allies. Revolutions in the field of neurobiology are now closely aligned with (and complement) a comparable revolution in the field of cognitive psychology – mind meets brain and body. We see this alliance in the brief description we offer later regarding the biopsychosocial perspective on stress- management. We also see this alliance operating in the engagement of three other human service strategies that hold the potential of being directly aligned with mindfulness practices: psychotherapy, biofeedback and (the newest of the psychologically founded strategies) neurofeedback. We will briefly touch on each of these.

Psychotherapy is the use of psychological methods, particularly when based on regular personal interaction, to help a person change behavior and overcome problems in desired ways.

Psychotherapy aims to improve an individual's well-being and mental health, to resolve or mitigate troublesome behaviors, beliefs, compulsions, thoughts, or emotions, and to improve relationships and social skills. We have found that many health-related issues (especially those involving trauma and sustained negative stress) are best addressed with the assistance of an experienced psychotherapist. As human service professionals who often advise clients about quality of sleep, some of our best work is done when we help our client recognize that they need work with a therapist if their sleep is to improve.

Biofeedback is a technique you can use to learn to control your body's functions, such as your heart rate. It can be of great benefit in assisting one to fall asleep. With biofeedback, one learns how to relax and prepare for many physical states (such as sleep). You're connected to electrical sensors that help you receive information (feedback) about your body (bio). Biofeedback is an effective technique for training people to change the variability and dominant rhythms of their heart activity. This change in biological functioning is often of great value—especially in the reduction of negative stress and preparation for sleep.

Neurofeedback is a type of biofeedback that measures brain waves to produce a signal that can be used as feedback to teach self-regulation of brain function. Neurofeedback is about the direct training of one's brain, by which the brain learns to function more efficiently. We observe the brain in action from moment to moment. We show that information back to the person. And we reward the brain for changing its own activity to more appropriate patterns. There are several "over-the-counter" devices being marketed as neurofeedback devices that can be self-applied. We urge caution in the use of these devices by yourself. Someone with training is needed – especially because these devices will often activate the HPA Axis in response to re-emergence of traumatic memories. However, neurofeedback, along with specific mindfulness practices and biofeedback tools, might hold the answer for many people who struggle with getting a good night of sleep.