

Take a Nap!
Change your life.



The Scientific Plan

*To Make You Smarter,
Healthier, More Productive*

Take a Nap! Change your life.

Sara C. Mednick, Ph.D.

with Mark Ehrman

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To our loving fathers—and the greatest
of nappers—Sarnoff A. Mednick and
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—M.E.

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Introduction: The Couch at Harvard

My Journey from Skeptic to Nap Advocate

It's 3 P.M. Wednesday. The phone is ringing. A student has dropped off a sheaf of printouts and expects me to make sense of them. I'm testing an experimental subject and the computer that's scoring the results has just crashed. In an hour, I'm scheduled to give a presentation of my research. What to do? After putting out the immediate fires, I have half an hour to spare. So I reach for my secret weapon. It never lets me down.

At 4 P.M., I enter the auditorium at the Salk Institute for Biological Studies, stand before my colleagues and explain my latest scientific findings on the benefits of napping. The presentation goes without a hitch. When I'm done, someone asks the question I get every single time I give this kind of talk.

"Do you nap?" he asks.

And I give my stock answer: "Of course I do. It's my secret weapon."

Five years ago, I never imagined that a healthy solution to facing life's multiple challenges could be as simple and attainable as a short nap. Faced with a challenge, I'd respond with another shot of espresso, splash some cold water on my face and drag myself through the rest of my day. If someone had told me that I would go

on to become a “nap expert”—and a staunch advocate of the restorative powers of daytime rest—I would probably have advised psychological counseling.

But life-changing lessons come in all forms. In my case, the catalyst was a ratty old couch that arrived at my lab in Harvard University’s Department of Psychology, where I was a graduate student. Its owner was about to throw it away (for good reason, by the looks of it), but Jay Edelman, one of the research associates, wanted something for visitors to sit on. I needed him endlessly as a trio of grad students carried that ugly brown couch into his office on the seventh floor of William James Hall. It probably looked fine the day it came home from the store, but after 20 years of duty its wool upholstery was pilling and cotton stuffing was curling out everywhere. Little did I suspect that an old castaway couch would give me an education I couldn’t get in any Ivy League lecture hall.

My preschool teachers can vouch for the fact that I was never much of a napper. Back then, teasing the boys and disrupting my fellow students’ rest seemed a much more interesting way to spend nap time. And until my encounter with that couch, not much had changed. But my father, also a research psychologist, swore by napping, and he wasn’t the only accomplished person I respected who vouched for all the wonderful benefits a nap can bring. “Well, that’s just their opinion,” I thought. “Where’s the proof?” My attitude was: “Time spent napping is time taken away from getting things done.”

Of course, not all my great teachers were inanimate . . . or worn out at the seams. During my second year at Harvard, I walked into a lecture by Dr. Robert Stickgold, an associate professor of psychiatry. At that point, I had already burned through several possible thesis topics, tossing them all aside. I wanted to study something that would have a beneficial impact on a large segment of society, and investigating visual memory in schizophrenic patients—fascinating as that might be—didn’t fit the bill. But it was immediately apparent that Dr. Stickgold’s work was different.

He was investigating the role of sleep and its effect on different measures of learning and memory, such as how accurately subjects could tap out a specific sequence on a keyboard or how quickly they could pick out the orientation of lines that flashed briefly on a computer screen. While these tasks might appear pointless, they are functionally related to many essential behaviors. For example, doctors need these skills to quickly scan an X-ray for tumors, pianists use them to learn a piece of music, and secretaries and data-entry clerks depend on them every minute of their working day.

Dr. Stickgold's method involved testing his subjects twice on the same memory task, either with or without a period of nocturnal sleep between test sessions, then measuring the change in performance. Since he was monitoring electrical activity in the brain during sleep, he was also able to determine whether the quality of sleep affected the performance change. What he discovered was that only the subjects who slept through the night showed any improvement. He also proved that a minimum of six hours of sleep was needed for improvement to occur, and that subjects showed the most improvement when they'd had at least eight hours' sleep. This research struck me as important and relevant. After all, what could be more applicable to our daily existence than something we spend a third of our lives doing—or should be doing, anyway? I wanted in. But I didn't yet know where I would make my contribution.

During a meeting where graduate students were supposed to initiate possible research ideas, I made this offhand comment: "With all your results about the need for six to eight hours of sleep, isn't it ridiculous that so many people believe that a short nap has any benefits at all?"

"Well, my studies don't address naps," Dr. Stickgold replied. "I was looking at nocturnal sleep."

So off I went to the library to research everything that science had to say about the nap—what studies had been done, what the

results suggested and what theories had been advanced to explain them. In other words, step one in any kind of scholarly inquiry.

After poring over academic journals and online databases, I realized how little nap research was out there. And what was available didn't address my question: Does a nap positively affect a person's ability to perform memory tasks? Sleep researchers had invented impressive-sounding jargon—"prophylactic napping" (in anticipation of sleep deprivation), "compensatory napping" (after sleep deprivation) and "operational napping" (on the job)—yet they hadn't proved that daytime sleep has beneficial effects on the general population. Most of the research focused on special populations such as long-haul truck drivers, graveyard-shift workers and military personnel. But what about the rest of us? There was nothing addressing the kind of people I knew who claimed they were benefiting from napping—well-rested, healthy people with regular sleep and work schedules. Did my dad and my friends have reason to be such staunch nap supporters, or had too much midday sleep simply gone to their heads? On this point, the scientific community had little to say.

I went back to Dr. Stickgold with a proposition. "Why don't we run your experiment again?" I asked. "Only this time, instead of having a night of sleep between testing sessions, the subjects would take a 60- or 90-minute nap during the day, or no nap at all." He agreed that this would be a worthy endeavor and signed on.

We were in for a big surprise. Both the 60- and 90-minute napping groups showed as much improvement as did the subjects who had had six to eight hours of nocturnal sleep in Dr. Stickgold's original experiment. On top of that, the non-nappers' performance deteriorated, meaning that without a nap their brains didn't work as well as they should!

So now I had demonstrated the power of the nap to be a scientific fact. But there was more to come. A scientific experiment needs rigorous safeguards against allowing our beliefs to affect the

outcome, and this methodology often creates a disconnect between the facts we uncover and the way we lead our lives. In my case, the gap was particularly dramatic. I was a revved-up graduate student trapped on a hamster wheel of papers, exams, assisting faculty members and teaching undergraduate courses. Fifteen-hour days followed one after another, periodically expanding to 24-hour cycles without sleep. Before I could catch up, a bigger mountain of work would be dumped in my lap. I was losing focus, alertness and my ability to acquire and integrate information. My nerves were rattled from too much caffeine. I found myself getting irritated more often; sometimes, for the littlest things, I would burst into tears. Finally, one day, when even the ever-increasing shots of espresso could not keep my eyelids from fluttering shut, I crept into Jay's office and crashed out on his couch. Of course, I felt ashamed . . . and not just because I was always making fun of that old castaway. "This is a lab, not a Motel 6," I chastised myself. "Look at all the other grad students dutifully tapping away at their computers or running experiments. How would it look to be caught sleeping during the day?" I begged Jay not to tell anyone where I was.

Then one afternoon in my lab, as the numbers on the computer screen were dancing before my bleary eyes, I had my *Helloooo* moment: *Learning after a nap is equal to learning after a full night of sleep! Test scores of non-nappers deteriorate across the day!* That's what my research proved. Why should I feel guilty about napping when I was staring at evidence that it actually makes you smarter and more productive? I got up from my chair, turned to my lab partners and announced, "I'm going to take a nap."

I don't know whether giving myself permission to catch a bit of shut-eye made it easier for others to do the same, but pretty soon it was open napping season on the seventh floor of William James Hall. Brad, a lab partner who studied a fascinating syndrome called prosopagnosia (the inability to recognize individuals by their facial features), started taking a nap in the afternoon. Arni, our Icelandic

import, would nap in the morning because he'd been up since dawn taking care of his newborn daughter. And Lorrella, who not only had a lovely three-year-old daughter at home but was pregnant with twins and drove all over the state of Massachusetts reaching her test subjects, took to napping whenever and wherever she could (including her car). My academic adviser, Ken Nakayama, took to napping in his comfortable leather chair with his feet on his desk. The only loser was Jay. With so much demand for his couch, we "voted" to move it into a room that could be darkened completely and started napping in shifts. I had created my first nap-friendly environment.

By then, it was clear to me that I would specialize in the long-ignored effects of napping. It had made me a more alert and productive person. Now the time had come to convince others that it could do the same for them.

And today, that's exactly what I do. My work at the Salk Institute has brought me into collaboration with the U.S. Navy, the Veterans Administration Medical Center, scholars at major universities, research organizations and private businesses. Many more scientists now recognize napping as a fruitful area of inquiry, and my endeavors in this field have been bolstered by the fine work of other individuals and institutions not only in the United States but around the world, particularly in Japan. A new branch of sleep research is establishing itself right before my eyes. While my early work investigated the effects of napping on learning, other people were studying its benefits on health, endurance and safety issues. Napping, as far as science is concerned, is finally getting some respect.

Still, many prejudices and misconceptions prevail. Ironically, the society that looks down its nose at napping is the same one that has been slowly robbing its people of more and more sleep. It's not as if the news hasn't gotten out. Media coverage has been very generous when new nap studies are published. Some innovative corporations and even whole towns have "woken up" to the benefits of

napping. And I receive many e-mails from students who've brought couches or cots into their university studying areas, workers who nap at lunch and communities that have organized "napping clubs." But these developments are mere scattershot in the face of the major attitude adjustment that needs to take place.

That's why it was important to write this book.

The "big picture" message is that napping is a necessary and effective tool that can be used by anyone in pursuit of optimum health, happiness and productivity. I want to tell you why that is so, and how to make that knowledge work for you, your family, your company and your community. I want to make you a napper.

My cowriter and I bring more than a differing set of skills to the project; we also represent diametrically opposed lifestyles. My life is highly structured. I juggle my research at the Salk Institute with speaking engagements, conferences and correspondence. And, like everybody else, I have a personal life—relationships, social engagements, exercise and recreation. Yet I am certain that none of this would occur without penciling in a half-hour nap. Mark, on the other hand, is a freelance journalist who interviews prominent scientists and political figures when he's not reporting on travel destinations in Europe or the latest Hollywood gala. By necessity, he lives a largely unstructured life. Still, he organizes his workday around his naps.

The product of this napping collaboration is what you now hold in your hands. We hope you read it, believe it and put it to use.

Sara C. Mednick