

DECISION TIME; INSIDE THE POWELL CAMP

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The **Melatonin** Craze

Sleep, Jet Lag
and Aging:
The Selling
of a Natural
Wonder Drug

PLUS:

Highs & Lows of
'Herbal Ecstasy'

It's a natural substance that resets the body's clock and helps it sleep. But can it also slow the calendar of aging? Here's what we know - and don't know - about a potent hormone that millions of Americans are prescribing for themselves. By Geoffrey Cowley

Melatonin Mania

HEALTH FADS ARE NOTHING new, but rarely does one hit with the force of the great melatonin craze of 1995. Just three months ago, international travelers and alternative-medicine enthusiasts were the only ones dosing themselves with the naturally occurring hormone. A typical health-food store sold just a few jars of pills or lozenges each week, and many didn't carry the stuff at all. But the market exploded in early August, when a spate of books, articles and broadcasts started detailing new research on melatonin's possible health benefits. Rhonda Winokur, who runs a small natural-foods store in Rockledge, Pa., sold out in one day, after the appearance of a NEWSWEEK article ("Melatonin, Aug. 7). Winokur restocked her shelves and started answering her phone, "Yes, we have melatonin!" only to sell out again within a week. And when she tried to place another order, the suppliers were swamped. Small wonder. Demand has grown so fast that the huge GNC chain, which didn't even carry melatonin until early September, was moving 4,000 bottles a day by the middle

of the month.

Melatonin, in case you've missed the hoopla, is the all-natural nightcap. It's secreted by the pineal gland, a pea-size structure at the center of the brain, as our eyes register the fall of darkness. Studies suggest that low-dose supplements can hasten sleep and ease jet lag, without the hazards or side effects of prescription sleeping pills (page 63). And though the evidence is still sketchy, some researchers believe that melatonin could help counter the ravages of age. In test-tube and animal experiments, researchers have found that it protects cells, strengthens the immune system and slows the growth of some tumors. Of course there are surer routes to good health - old standbys like exercising, eating right and giving up cigarettes. But to hordes of Americans, the lure of a safe, cheap, "natural" panacea is proving irresistible. "It's like a revolution," says Margarita Dubocovich, a neuropharmacologist at Northwestern University. "People are going crazy for this Stuff."

How crazy? In Miami's fashionable Coconut Grove shopping district, the Oak Feed Natural Food Market is limiting customers to

20 bottles apiece to avoid shortages. At Sherwyn's, Chicago's largest supplement store, vitamins manager David (Rocky) Caplan says melatonin sales increased tenfold in eight weeks. "Our sales have increased more than 10 times," says Marvin Babin of Vitamins 4-U in San Francisco. The stuff is selling even in Seattle, where the drizzle can make waking a bigger challenge than sleeping. "It's outrageous," says Lorrie Pults, Manager of a local Pilgrim's Nutritional Center. "We can hardly keep it on the shelf"

Folks who aren't scouring the health-food stores for melatonin are apparently too busy shopping for books about it. "The Melatonin Miracle," by Drs. Walter Pierpaoli and William Regelson, has sold well over 100,000 copies since Simon and Schuster brought it out in late August. In an unusual move, Walgreen's recently ordered 6,000 copies to sell in its

pharmacies. The book is now No. 3 on The New York Times best-seller list (advice and how-to) and headed into its sixth printing. Meanwhile, Los Angeles family physician Ray Sahelian has ordered a fourth printing of his self-published "Melatonin: Nature's Sleeping Pill," which has sold 50,000 copies since August. "Melatonin: Your Body's Natural Wonder Drug," by veteran researcher Russel Reiter and writer Jo Robinson, is just reaching stores this month, but Bantam Books has already sold rights for eight foreign editions.

Lucky mice: Clearly, the craze has been good for peddlers and publishers. But what about consumers?



Riding the wave: At Shewyn's, Chicago's biggest health-food store, melatonin sales increased tenfold at the end of the summer

50 while their elders pursued tennis and romance at 100. In other experiments, Pierpaoli found that spiking some animals' drinking water had the same effect.

It would take decades to see whether people respond as dramatically as mice. But whatever its effect on aging, melatonin can clearly help bring on sleep. In controlled clinical studies, researchers have found that as little as a 10th of a milligram makes dozing off easier, whatever the time of day. And other studies have shown that a brief nightly regimen can help airline crews ward off jet lag. Better rest is the main draw for the people now rushing to try melatonin, and many of them are finding it. Sahelian,

Should they really be taking this stuff? What do they stand to gain—or lose?

By Pierpaoli and Regelson's account, there's no question that melatonin can stave off the ravages of age. That's a stretch for no one has ever studied the effects of long-term use in humans. But as dreams go, it's a plausible one. Like most animals, we produce a lot of melatonin early in life, but our blood levels drop sharply around puberty and decline steadily as we get older. Animal studies suggest it's no coincidence. Several years ago Pierpaoli paired 10 young mice with 10 older ones and surgically switched their pineal glands, restoring youthful melatonin levels to the elders at the youngsters' expense. The young mice grew decrepit and died in late middle age, but the older ones surpassed their life expectancies by an average of 30 percent. In human terms, the youngsters were dying at

who monitors a half-dozen alternative-health discussion groups on the Internet, estimates that 80 percent of the recent postings about melatonin have concerned better sleep. "Folks, I've tried melatonin and it's great," reads a typical comment. "It has... restored my sleep cycle, given me lots of energy."

Bad dreams: Not everyone is so pleased. In Sahelian's informal survey, 10 percent of the users said the hormone did nothing for them, and another 10 percent complained of side effects such as nightmares, headaches, morning grogginess, mild depression and low sex drive. In past studies, researchers have given people up to 6,000 milligrams a day - 600 to 3,000 times the usual doses - without causing any toxicity. And despite the recent surge in use, the Food and Drug Administration has recorded only four complaints about melatonin. Two people said it had disrupted their sleep patterns, one complained of genital pain and a fourth reported feeling nauseated. "We can't substantiate that melatonin was in part or largely responsible for these [problems]," says FDA spokesman Brad Stone.

Even so, some experts are appalled to see so many people toying with such a potent hormone. One concern is that high doses, while causing no immediate harm, could have unknown long-term effects. "Even one milligram, the smallest commercially available dose, is at least three times higher than the normal amount in the body," says Dubocovich, the neuropharmacologist. "Does the body need so much melatonin? Maybe adults produce less for some reason." A second concern is that no one regulates the quality of what's sold on store shelves. The FDA monitors drug-makers' raw materials and production methods, but because melatonin is sold as a "dietary supplement," it isn't subject to such scrutiny. Anyone wondering about the strength and purity of what's in the bottle has just two options: believe what the manufacturer says, or hire a lab to perform a chemical analysis.

While both concerns are surely valid, neither is unique to melatonin. Doctors prescribe countless drugs without knowing all their possible long-term effects. And buying any unregulated supplement - even calcium or vitamin C - requires a small leap of faith. Though melatonin is by all accounts safer than a prescription sleeping pill, Reiter

A Bonanza for Booksellers

The melatonin craze has been almost as good for publishers as it has for health-food stores. Some recent books:

The Melatonin Miracle by Walter Pierpaoli and William Regelson with Carol Colman (Simon & Schuster. \$21). A fascinating account of the research, despite some exaggerated claims.

Melatonin: Your Body's Natural Wonder Drug by Russel J. Reiter and Jo Robinson (Bantam Books. \$22.95). A brisk introduction

to melatonin by America's leading expert (Reiter).

Melatonin: The anti-Aging Hormone by Suzanne LeVert (Avon Books. \$5.99). A hype-free primer.

Melatonin: Nature's Sleeping Pill by Ray Sahelian (Be Happier Press. \$13.95). Guidance from a doctor.

and Robinson have identified several classes of people who should probably avoid it, at least for now. Those include women who are pregnant or nursing (since no one knows how excessive exposure to the hormone might affect a fetus or infant); people with severe allergies or autoimmune diseases (melatonin could exacerbate such conditions by stimulating the immune system); people with immune-system cancers such as

lymphoma or leukemia (for the same reason), and healthy children (who already produce it in abundance). Women trying to conceive should also think twice about taking the hormone, since high doses can act as a contraceptive.

Whatever its strengths and failings, melatonin isn't the only natural remedy capturing America's imagination. As any newcomer to the neighborhood health-food store will discover, it's just one star in a vast and growing constellation (following story). Last year Americans spent nearly \$1 billion on herbs and other tonics, more than twice what we spent just five years earlier. Throw in vitamins and minerals and the tally was \$4.6 billion.

William Watts, president of GNC Corp., sees several trends at work: the aging of the baby-boom generation; a growing preference for prevention and self-care over high-tech intervention, and an expanding body of research suggesting that natural remedies can work. But to William Jarvis of the National Council Against Health Fraud, the natural-remedies boom looks more like a triumph of hucksterism over sound sense. "What you have with melatonin is a potentially useful drug that the health-food industry is rushing ahead and selling to anyone who wants it," he says. "The rule in medicine is, first do no harm. The rule of the health-food industry seems to be, if it's a fad, get in there and sell it before the FDA bans it." He's surely half right. There's no shortage of old-fashioned Yankee salesmanship in the supplements business. But where melatonin is concerned, there's no evidence it's hurting anyone.

With SUSAN MILLER in New York, KAREN SPRINGEN in Chicago, Peter Katel in Miami and BINNIE K. FISHER in Seattle

How to Beat Jet Lag

MELATONIN MAY or may not retard aging, but experts agree that it can help ward off jet lag. There's more than one way to tackle a new time zone. Here are two possible approaches: **Prepare** in advance. **Secreted** naturally at the fall of darkness, melatonin prepares the **body** for a

"sleep phase" that ends with the **return** of light. But as **every** traveler knows, **shifting** that **phase** takes time. Fly east from L.A. to New York, and when **the clock** in Times Square says it's midnight-time to sleep if you **have to rise** early — **your** body will **swear** it's only 9. To **ease** that conflict, Dr. Al Lewy of the Oregon Health Sciences University suggests **starting** a melatonin **regimen** a day or two before leaving the West Coast. Rather than taking a **sleep-inducing dose** of **two to five** milligrams and

heading to bed early, he recommends popping a tiny (0.5 mg) dose in the middle of the afternoon and getting on with the day. The point is not to knock yourself out he says, but to simulate an earlier **sunset** and let your **body** respond accordingly. To **prepare** for an east-to-west flight, he would take the **same** small dose in the morning, in effect delaying the **dawn**. Wait until you **arrive**. When you're crossing nine or 10 **time zones**, it can be hard to tell whether you

need an **earlier** sleep **phase** or a later one, let **alone** **figure** out how to **move** in the right direction. Dr. Ray Sahelian, a family practitioner in **Los Angeles**, suggests simply waiting until you reach your destination, then taking melatonin **around** bedtime—one milligram for every time **zone** you've **crossed**, up to 10 or 12 mg. **Either** system can help, for **melatonin** works **as a soporific** as well **as a timekeeper**. But Sahelian's **doesn't** require a calculator. G.C.