

Psoriatic Arthritis Patient Educational Symposium

Sleep for Success!

*Everything you must
know about sleep
but are too tired to ask...*

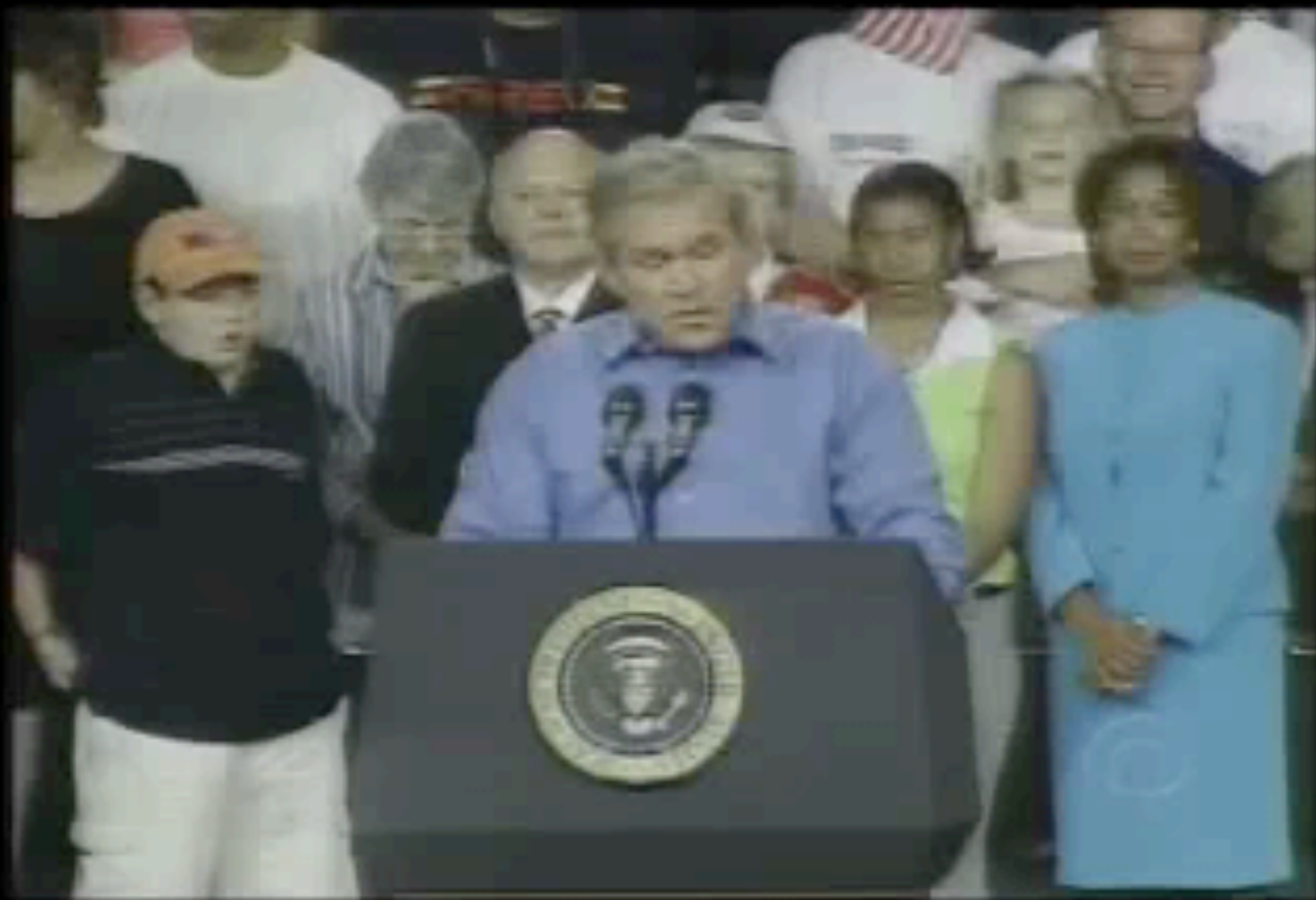


The Sleep Deprivation Crisis

Most people are moderately to severely
sleep deprived

- 71% do not meet the recommended
7.5-9.5 hrs/nt (7? or less?)
- High school & college students are
walking zombies

Even middle schoolers are exhausted
and inattentive...





Pres. Bill Clinton at Martin Luther King Memorial



UK PM Gordon Brown at United Nations

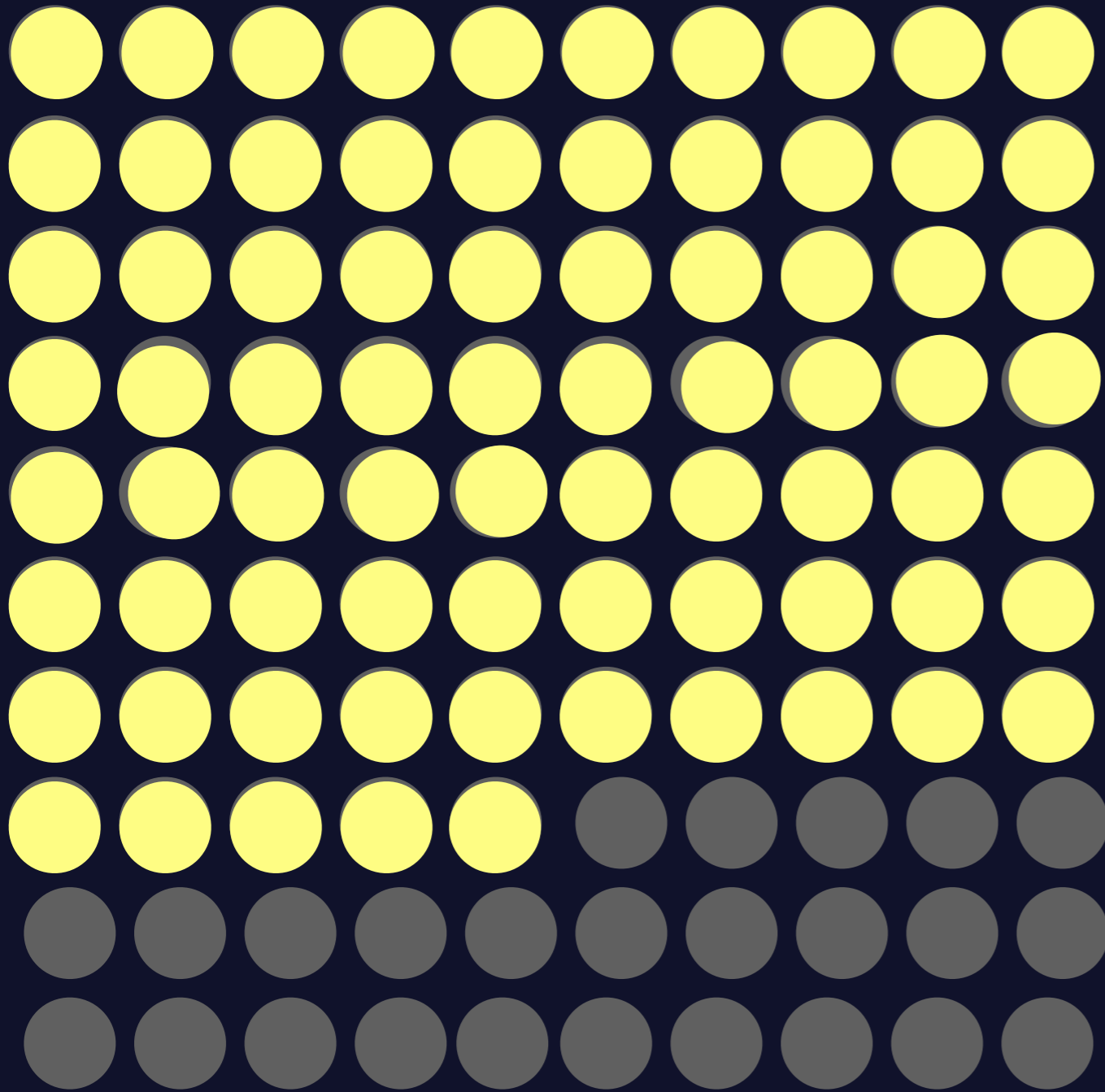


Korean Lawmakers



National People's Congress



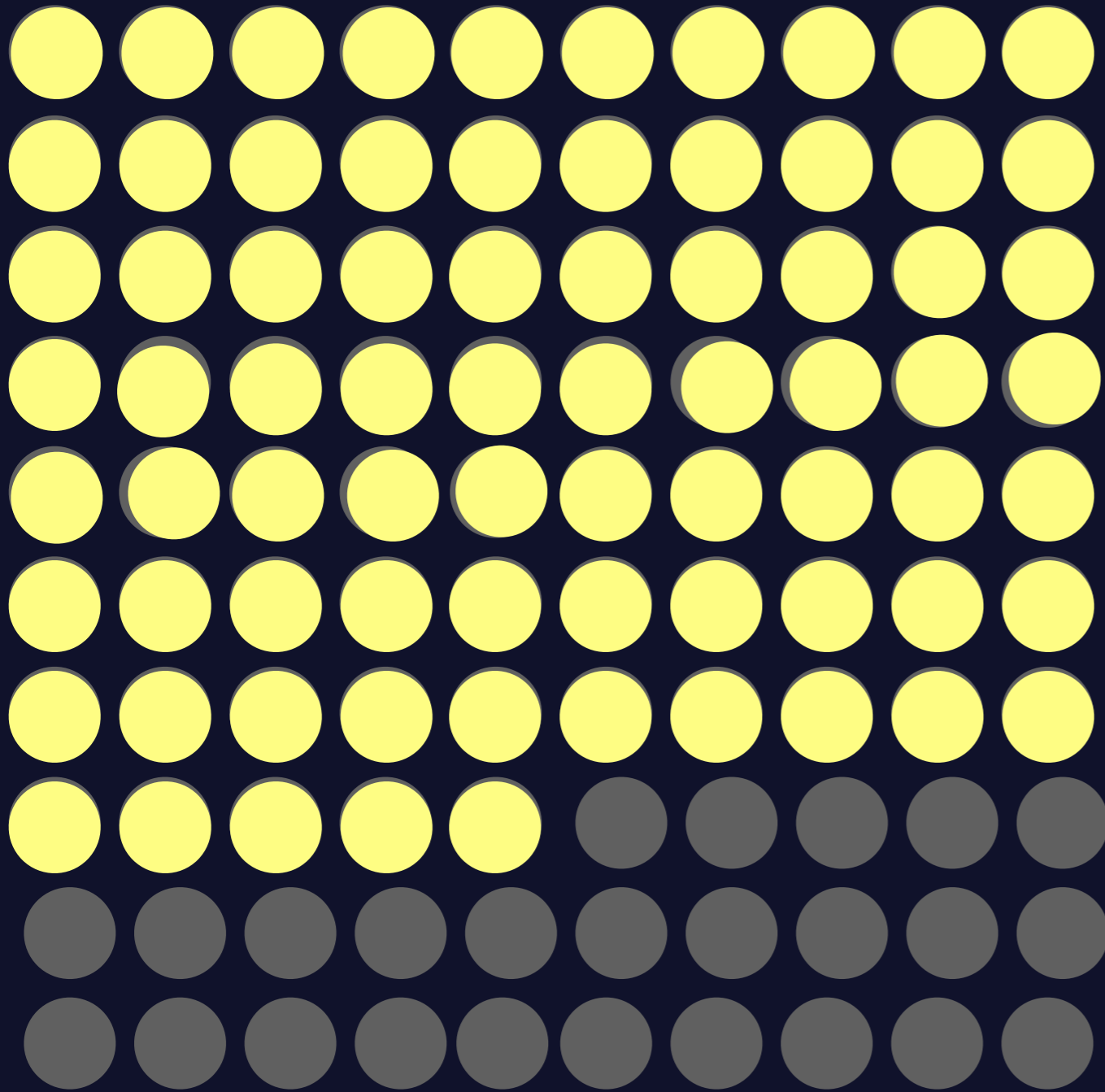


75%

of adults experience
sleep problems
each week.

- Difficulty falling asleep
- Middle of the night awakenings
- Waking up too early

All of this causes daytime *sleep inertia*
(grogginess and lack of mental clarity)



75%

of adults experience
sleep problems
each week.

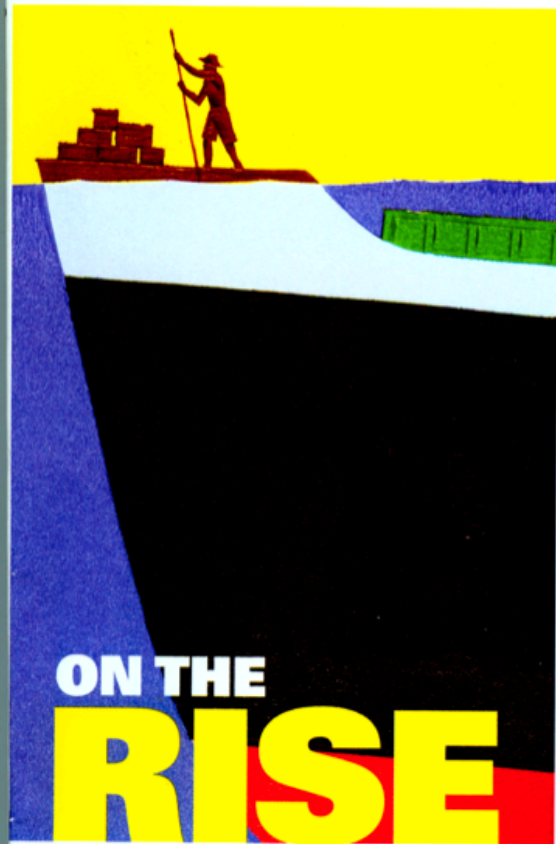
- Difficulty falling asleep
- Middle of the night awakenings
- Waking up too early

Business loss due to poor sleep
is \$411 billion/year

The Change Leader's Toolbox...page 72 Biotech's Failed Promise...page 114

Harvard Business Review

www.hbr.org



...page 60

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Tarun Khanna and Krishna G. Palepu
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James G. March
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Thomas Eisenmann, Geoffrey Parker, and Marshall W. Van Alstyne
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David A. Garvin and Lynne C. Levesque
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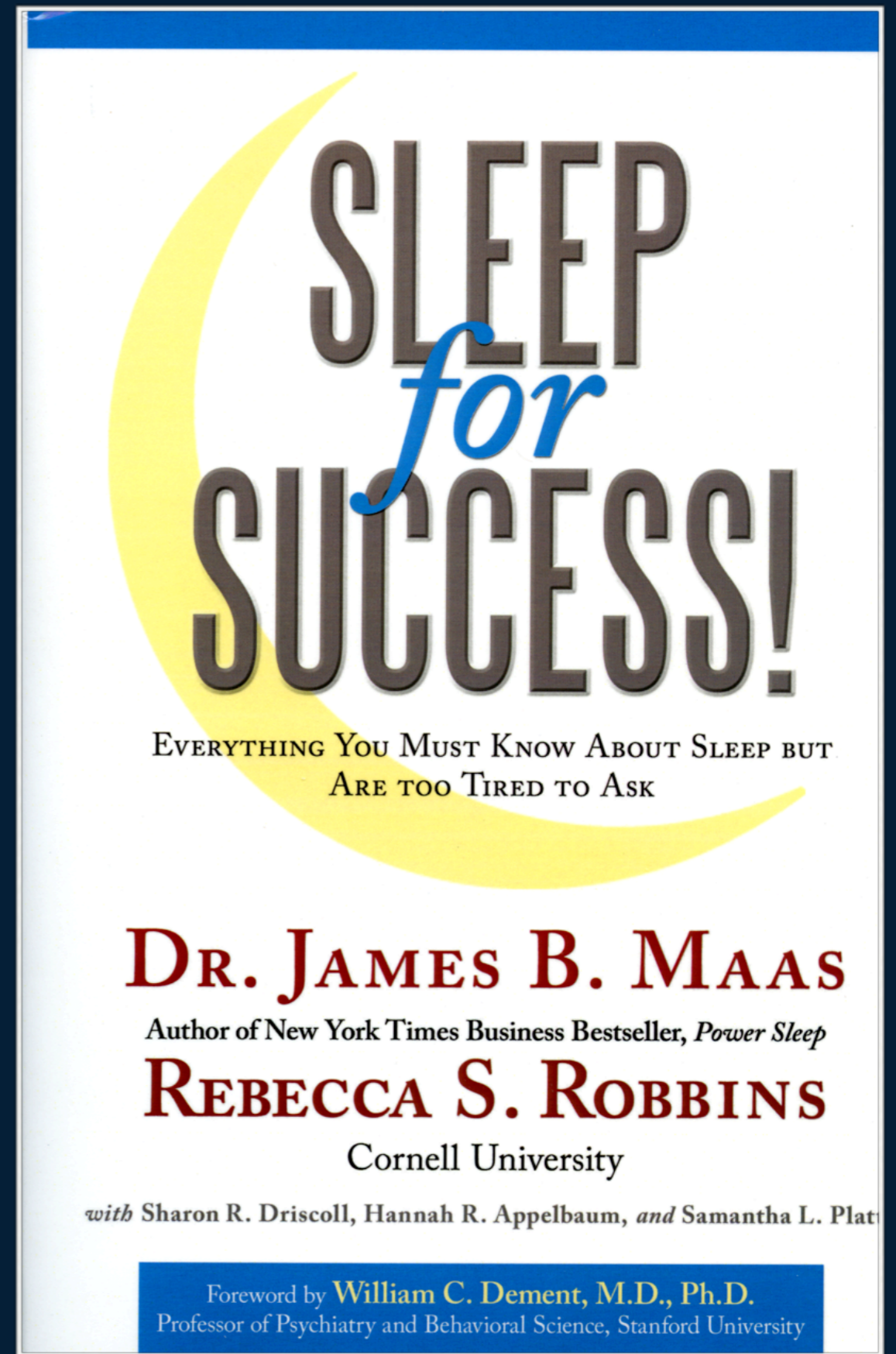
0 74820 64803 2 1 0>
US\$16.95 CAN\$19.95

“Top executives have a critical responsibility to take sleep seriously. Educational programs about sleep should be mandatory. If you want to raise performance you need to pay attention to this fundamental biological process

Encouraging a culture of sleepless machismo is worse than nonsensical; it is downright dangerous and the antithesis of intelligent management.”



*World's greatest
cure for insomnia...*



SLEEP *for* SUCCESS!

EVERYTHING YOU MUST KNOW ABOUT SLEEP BUT
ARE TOO TIRED TO ASK

DR. JAMES B. MAAS

Author of New York Times Business Bestseller, *Power Sleep*

REBECCA S. ROBBINS

Cornell University

with Sharon R. Driscoll, Hannah R. Appelbaum, *and* Samantha L. Platt

Foreword by **William C. Dement, M.D., Ph.D.**
Professor of Psychiatry and Behavioral Science, Stanford University

Professor of Psychiatry and Behavioral Science, Stanford University
Foreword by **William C. Dement, M.D., Ph.D.**

with Sharon R. Driscoll, Hannah R. Appelbaum, *and* Samantha L. Platt

Sleep Is a Necessity



Not a Luxury...

Sleep is Fuel for the Brain



Sleep is the single most effective thing you can do to reset your brain and body for health and performance


Quality and quantity of sleep determines waking success!

- ▶ Mood
- ▶ Alertness
- ▶ Energy
- ▶ Thinking
- ▶ Performance
- ▶ Social relationships
- ▶ Athletic ability
- ▶ Health
- ▶ Longevity



As Oprah and I were pillow talking...





Sleep deprivation makes you
clumsy, stupid, unhealthy

...and it shortens your life.

We must learn to value sleep!

“There are not enough hours in the day!”



If you get adequate sleep:
better mood, efficient, effective = some free time

Recent Research on Sleep

Sleep deprivation weakens your
immune system,
leading to a significantly higher risk of:
Hypertension (heart attacks & strokes),
Type II diabetes, Depression, Influenza,
Cancer, Alzheimer's Disease, Obesity
and Premature Death

Pilcher J, Huffcutt A. Effects of sleep deprivation on performance: A meta-analysis. *Journal of Sleep Research & Sleep Medicine*. 1996;19(4):318-326.

Improper Sleep Increases Illness

Dr. Jan Born, Univ. of Luebeck, Germany

People who sleep 6 hours or less each night lower their resistance to viral infection by 50%.

Proper Sleep Clears Arteries

Diane Lauderdale, Univ. Chicago

One hour more sleep every night
decreases risk of artery calcification by
33%

17mm drop in systolic blood pressure

Diane Lauderdale, Ph.D., Associate Professor of Health Studies, University of Chicago; Kathy P. Parker, Ph.D., R.N., Dean, University of Rochester School of Nursing, N.Y.; Dec. 24/31, 2008, *Journal of the American Medical Association*



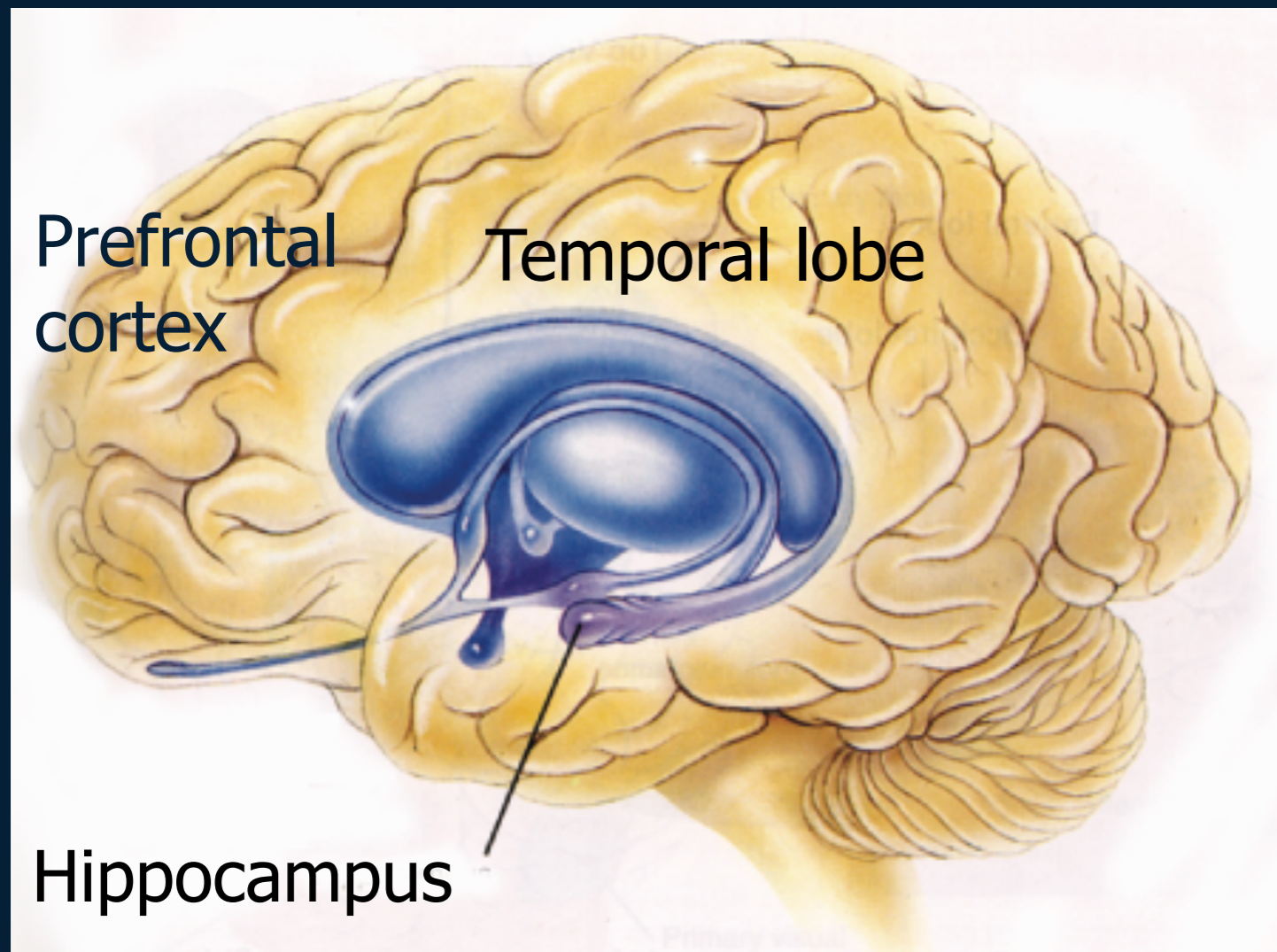
Recent Research on Sleep

The sleeping brain is highly active:

2) Puts new information into neural networks for long term storage...

essential for memory, learning, performance, problem-solving and creativity.

SLEEP for Peak Performance



All mental events enter hippocampus.

Sleep transfers information to the cerebral cortex and forms new connections of facts & concepts (memory traces).

Need 8 hrs. sleep for maximum transfer and retention.

Penn Medicine Researchers Show Lost Sleep Leads to Lost Neurons



The brain can be irreversibly injured from sleep loss.

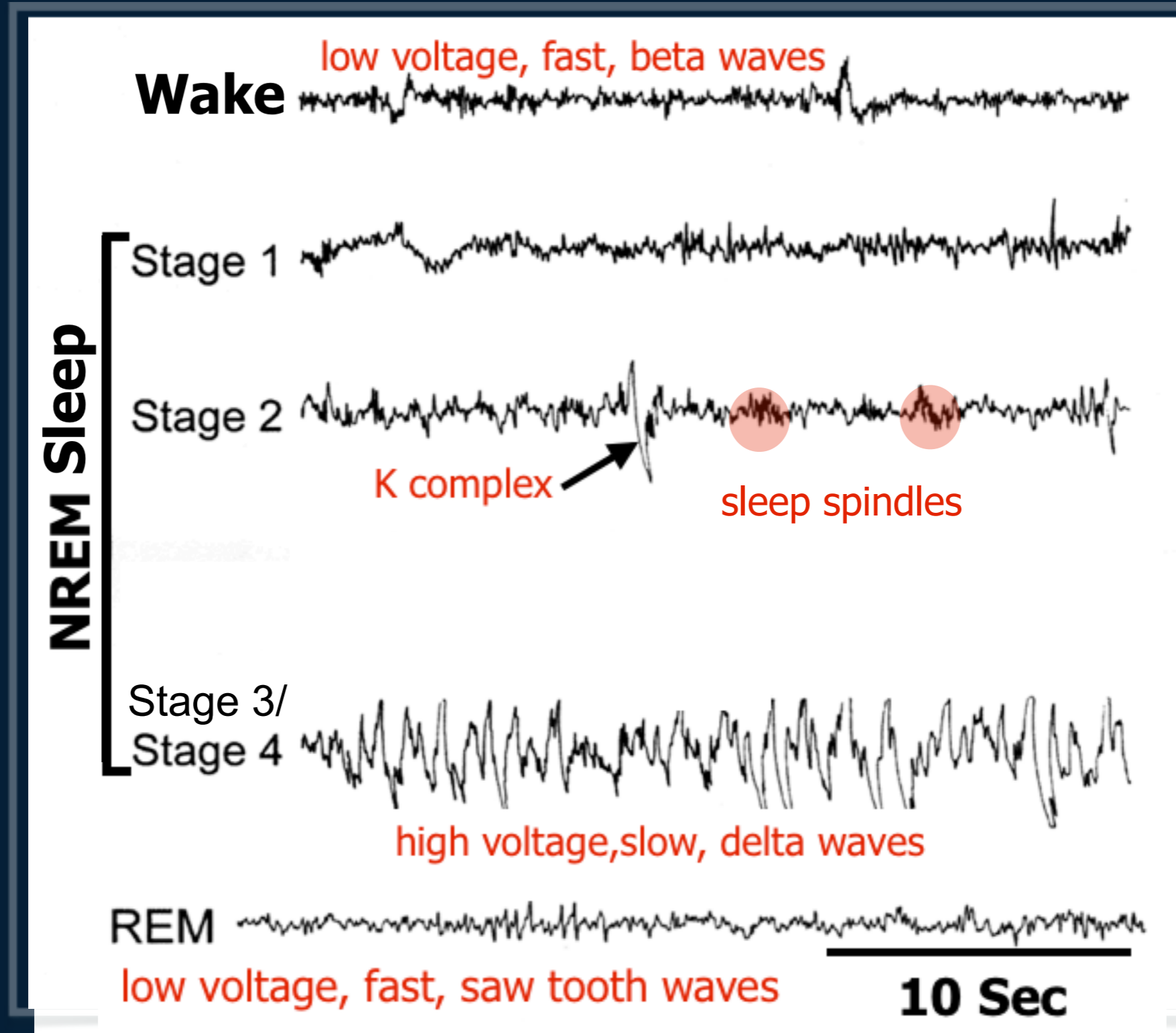
Jing Zhang, Yan Zhu, Guanxia Zhan, Polina Fenik, Lori Panossian, Maxime M. Wang, Shayla Reid, David Lai, James G. Davis, Joseph A. Baur and Sigrid Veasey. *Journal of Neuroscience* 19 March 2014, 34 (12) 4418-4431

Brain Waves (EEG) and Sleep Stages

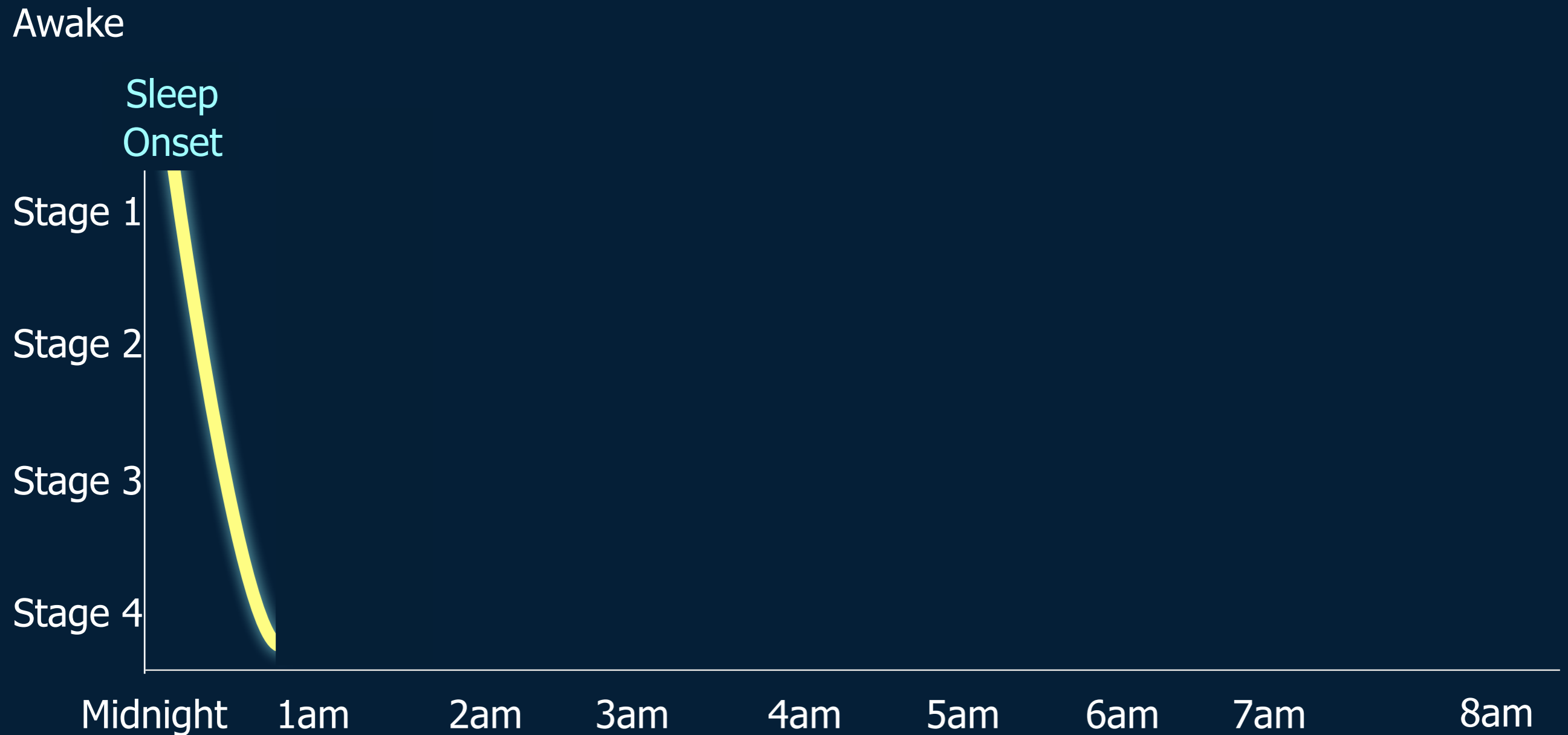
Wake

Sleep

Brain Waves (EEG) and Sleep Stages

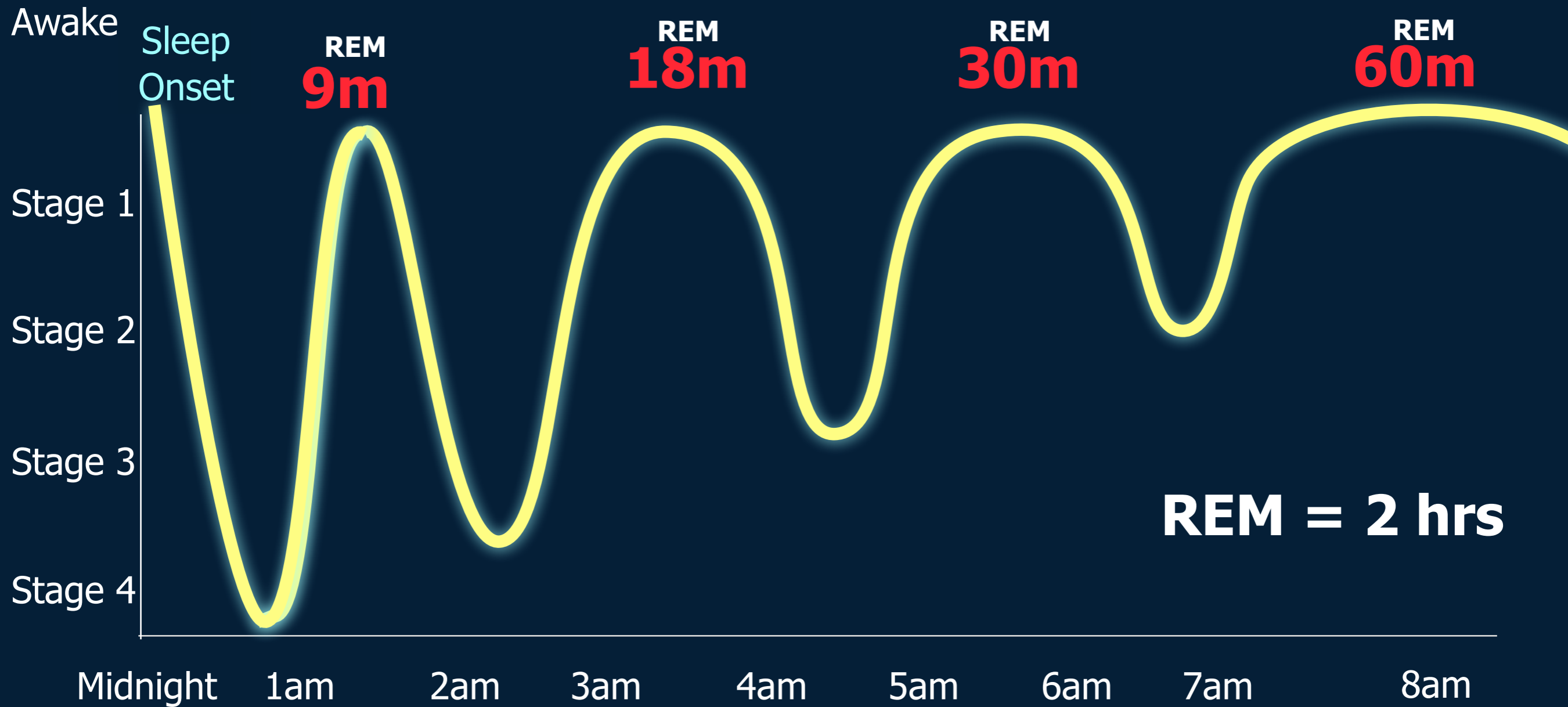


Architecture of a Good Night's Sleep






Architecture of a Good Night's Sleep





**MOST OF US
ARE
CHRONICALLY
SLEEP DEPRIVED**



Even in jobs
requiring safety,
vigilance or public
exposure....





Are You Sleep Deprived?

1. Does a heavy meal, low dose of alcohol, warm room, boring meeting or lecture ever make you drowsy?
2. Do you fall asleep instantly at night?
3. Do you need an alarm clock to wake up?
4. Do you repeatedly hit the snooze button?
5. Do you sleep extra hours on weekends?

The Solution for Snooze Bar Addiction





Consequences of Shortened Sleep

- Increased heart disease, diabetes, cancer, obesity
- Drowsiness/microsleeps/unintended sleep seizures
- Increased irritability, anxiety, depression
 - (disconnect between prefrontal cortex and amygdala)
- Decreased socialization skills & sense of humor
- Decreased motor skills and reaction time (driving)
- Decreased cognitive performance:
 - Reduced ability to process, concentrate & remember
 - Reduced ability to communicate
 - Reduced ability for complex/multi tasking & creativity
 - Poor decision skills and increased risk-taking
- In sum: Reduced health and performance

Golden Rules for Peak Performance

- 1) Determine and meet your sleep requirement every night. It's hard-wired, not adaptable!

Most adults need 7.5 to 9 hours sleep

Individual differences, genetically determined

Great athletes get great sleep!

Roger Federer
10-12 hrs/night



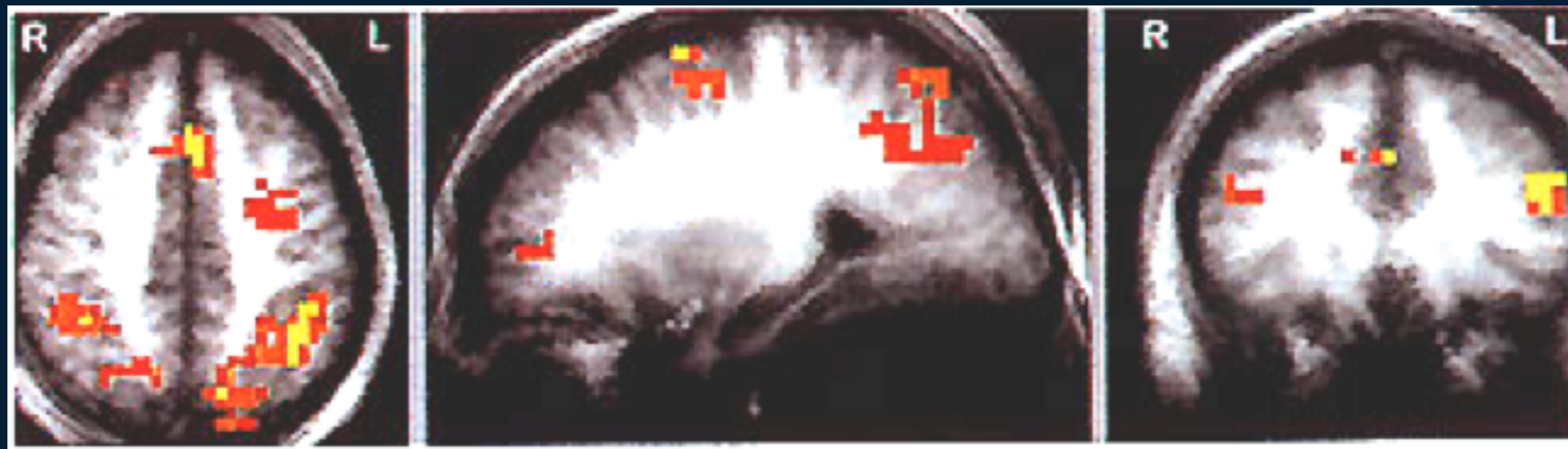
LeBron James
12 hrs/night



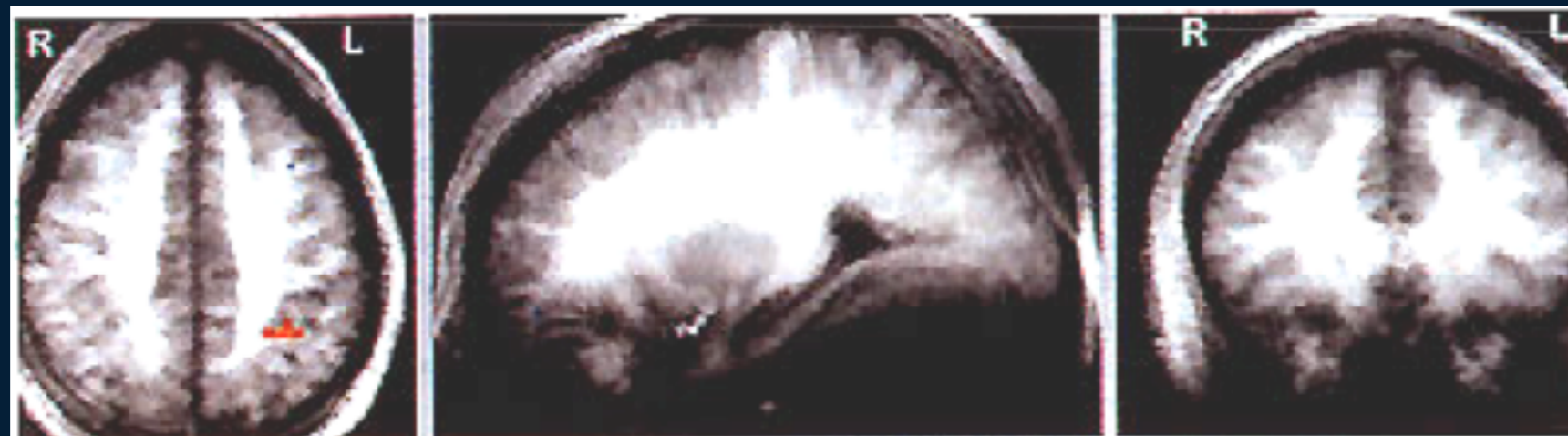
Tom Brady
Bedtime:
8:30-9:30PM

Effect of sleep deprivation on brain activation (math)

8 hrs
sleep



6 hrs
sleep





The Litebook Edge

\$188



Changing your Circadian Rhythm

Larks and Owls

Use Litebook for 15-20 minutes

2 ft. away at 45 degrees

Don't stare at it!

- * To jump start your morning (tired at night)
- * To extend your evening (tired in morning)

Good for older adults

... like 1-2 shots of caffeine without the side effects!



The Sochi Olympics 2014

11 time zones away

1 day to recover for
every time zone crossed

The NHL olympic break



Objective Measures: 1 in 5 people use actigraphy



Products ▾

STORE

Buzz

Social ▾

Dashboard

Click on the products below to find the one that's right for you.

FEATURES ▸ One



STEPS, DISTANCE,
CALORIES BURNED



STAIRS CLIMBED



ACTIVE MINUTES



SLEEP



GOAL SETTING



SYNCS WIRELESSLY



ONLINE AND MOBILE
TOOLS



CLOCK



Zip™

FUN, SIMPLE TRACKER
FOR EVERYONE

\$59.95



One™

ADVANCED ACTIVITY
AND SLEEP TRACKER

\$99.95



Flex™

STYLISH WRISTBAND
THAT FITS YOUR LIFESTYLE

\$99.95

Actigraph assumptions...

DREEM™ FIRST PROGRAM



Golden Rules for Peak Performance

2) Establish a regular sleep/wake schedule

Go to bed and get up at the
SAME TIME
every night and morning

Get into bright light for
15 min. to start the day!



Golden Rules for Peak Performance

3) Get good quality sleep

Normal to awaken several times

If up >20 min = insomnia

OFTEN CAUSED BY STRESS!!!



Golden Rules for Peak Performance

3) Get good quality sleep

Normal to awaken several times

If up >20 min = insomnia

OFTEN CAUSED BY STRESS!!!



Disrupted Sleep

Caused by: Caffeine (after 2 p.m.)

Decrease sleep by as much as 1 hour

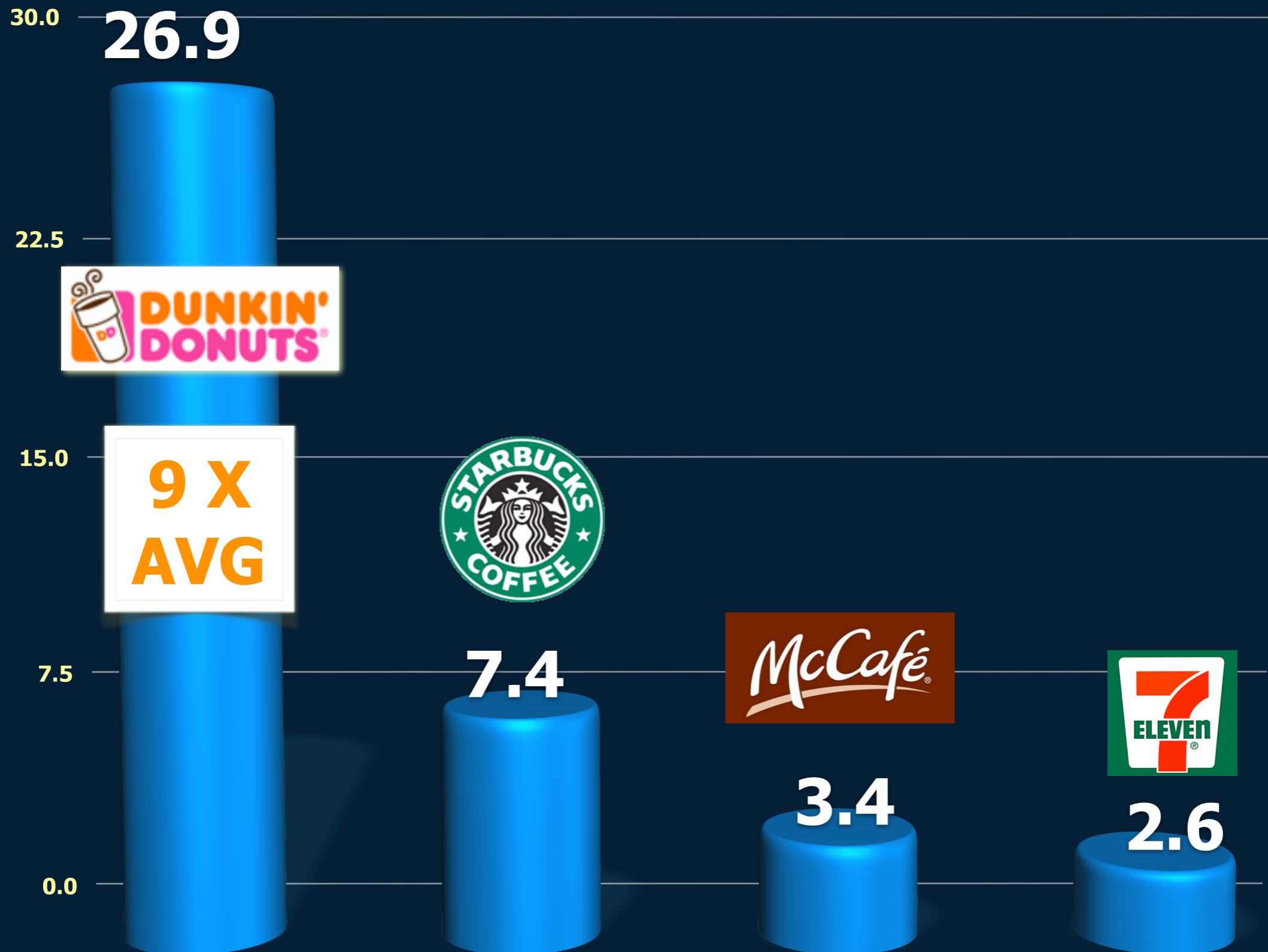
Fragmented Sleep

“ I drink only decaf after the morning...”

“Dunkin’ Donuts decaf is really great!”



Decaffeinated = 3 milligrams caffeine per 8 oz.



Fragmented Sleep

Caused by:

Caffeine (after 2 p.m.)

Nicotine



Liquor (within 3 hrs. of bedtime)





Restorative Nap

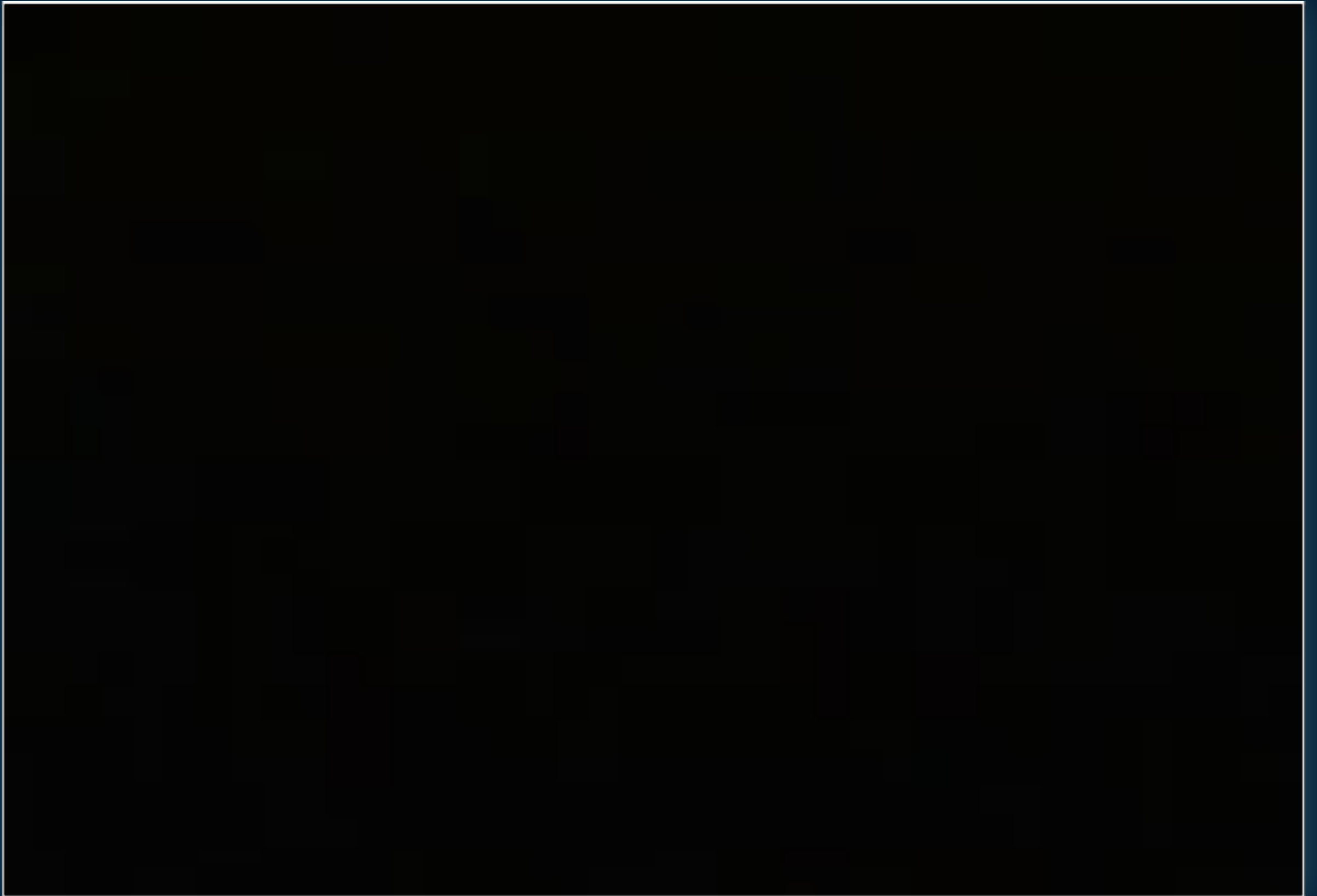
The biphasic sleep pattern
No modern day siesta

The “Power Nap”

Duration of naps?
Good for stress reduction,
memory, creativity
and to boost immunity



Napping at your desk...



Making a Case for Hitting Your Snooze Button

Continued from page B1
of sales and marketing at the hotel, which last week began a series of better-sleep initiatives for both employees and guests.

"If we treated machinery like we treat the human body, there would be breakdowns all the time," said James Maas, a former Cornell University psychologist and author of "Sleep for Success."

Companies have been slow to grasp the effects of sleep deprivation on productivity, but it is now a hot topic even in hard-driving industries, such as finance, where pulling all-nighters is often viewed as crucial to getting ahead.

'If we treated machinery like we treat the human body, there would be breakdowns all the time.'

Mr. Maas gave a talk about sleep hygiene at Goldman Sachs in 2011 that was so oversubscribed it had to be broadcast via conference call to accommodate the 1,000 or so people who wanted to attend. He spoke last year at hedge-fund firm **D.E. Shaw & Co.**, which has nap pods sprinkled around its offices.

Yet perceptions linger that sleep is for loafers, and neither Goldman nor Shaw would comment directly about why they're addressing employees' sleep habits. A 2012 University of Southern California study of young investment bankers suggests that punishing hours, and resulting sleep deprivation, contributed to physical and emotional ailments within four years

A Google employee takes a break in a nap pod, which blocks out light and sound, at the Internet giant's headquarters in 2008.



ally don't want to hear about how to get more sleep. Instead, they want tips for performing well on five or six hours' rest.

The risks of fatigue are especially acute in professions like health care and manufacturing, which involve overnight shifts and where a single careless error can put lives in danger.

likely a problem among its workforce. The course, one of several health-coaching sessions offered at Aurora and developed by **Johnson & Johnson's** Wellness & Prevention unit, requires participants to keep a sleep diary, and then makes recommendations based on individual sleep patterns.

about how she'd function that day. By changing her behavior—for instance, going to bed later—she began sleeping until her alarm rang at 5:30 a.m.

Based on follow-up surveys that asked about both sleep and work habits, Aurora sees an average of \$672 in productivity savings per participant in the in-

that makes Always feminine-hygiene products, and the other in Lima, Ohio, that makes liquid laundry detergents.

Paul DeLuca, North American learning and development manager, said he hopes to have both courses running by June, starting with a group of 15 to 20 workers in Lima and up to 300 in Belleville.

The plants operate day and night, so many employees work unconventional hours, a known risk for poor sleep and overall bad health. If the program helps workers get better rest, with resulting gains in productivity and concentration, Mr. DeLuca will argue for a broader rollout of the initiative.

P&G brought Ms. Rothstein to its headquarters in Cincinnati last year to give a 50-minute presentation emphasizing, among other things, the importance of shutting off screen devices an hour before bed because the blue light emitted by the screens interferes with production of the sleep hormone melatonin.

That's no easy order in the age of smartphones, laptops and late-night conference calls with the Beijing or London office. "The line between work and what's outside of work is graying," Mr. DeLuca said.

At the more extreme end of the intervention scale, some are calling upon **Litebook Company Ltd.**, a Canadian maker of lights that help regulate the body's melatonin levels. The company, which supplies devices to the Philadelphia Flyers and Ottawa Senators to help athletes cope with jet lag and game schedules, said it is getting calls from corporations interested in making the lights available at workstations and desks.

NASA: 34% greater performance
100% improvement in alertness



Proven Strategies for Great Sleep

1. Setting the bedroom stage:

Quiet, cool 65-67° F

Dark



Proven Strategies for Great Sleep



Noisy environment?
Sound Conditioner
The Dohm
Bed, Bath & Beyond

Actual white noise!
Masks disruptive
sounds, enhances
sleep depth & quality

Get a Fantastic Pillow




The "Pillow Test"

Head, neck and spinal cord in alignment

Proven Strategies for Great Sleep

1. Setting the bedroom stage: quiet, dark, cool
2. Limit TV, computers, clocks



95%

71%



iPad before bed can affect sleep habits

10 am



Proven Strategies for Great Sleep

1. Setting the bedroom stage: quiet, dark, cool
2. Limit TV, computers, clocks
3. A hot bath, easy stretching, “Worry Time”
4. Reading as a bedtime ritual



Proven Strategies for Great Sleep

5. Relaxation Techniques

(To lower heart rate and cortisol levels, reduce blood pressure, increase gastric motility and relax muscles of the face and voice)

Meditation

Yoga

Massage foot or neck

Guided Imagery

Progressive Relaxation

Deep, Slow Breathing 4-7-8



Proven Strategies for Great Sleep

1. Setting the bedroom stage: dark, quiet, cool
2. A relaxing atmosphere; limit TV; computers; clocks
3. A hot bath, easy stretching, “Worry Time”
4. Reading as a bedtime ritual
5. Relaxation Techniques
6. If you toss and turn...

Proven Strategies for Great Sleep

1. Setting the bedroom stage: dark, quiet, cool
2. A relaxing atmosphere; limit TV; computers; clocks
3. A hot bath, easy stretching, “Worry Time”
4. Reading as a bedtime ritual
5. Relaxation Techniques; imagery
6. If you toss & turn...
7. Sleeping pills

55,000,000 Rx

\$1,000,000,000

WARNING: Sleeping pills are hazardous to your health and could cause death from cancer, heart disease, or other illnesses.

A safe alternative to sleeping pills

The safe alternative to sleeping pills

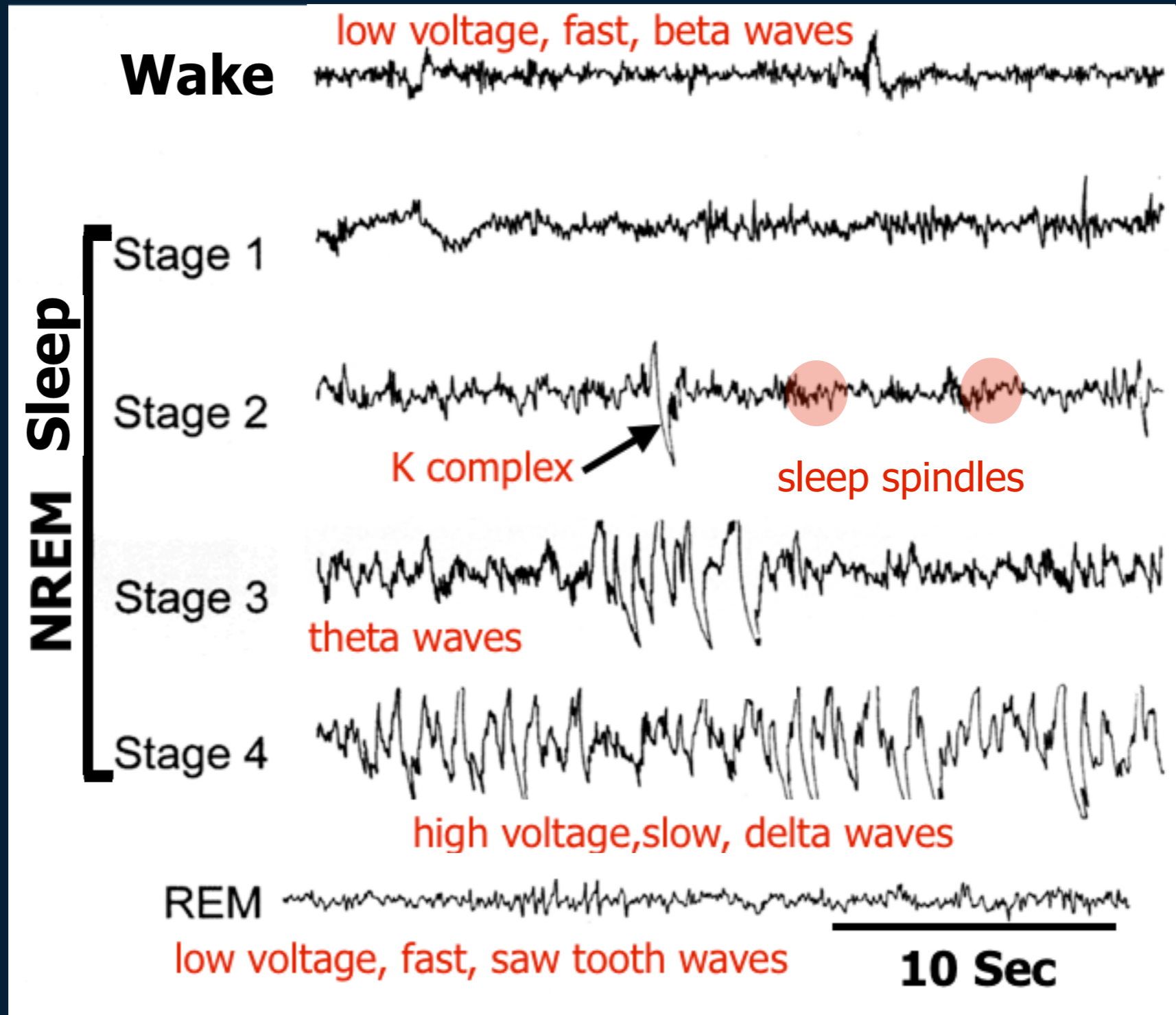


Valerian Root
Magnesium Gluconate
Melatonin
GABA
Magnolia Bark
5-HTP

Relieves anxiety and stress levels
Improves sleep quality and duration
Boosts All-Day energy levels

<https://sleepdocpm.com/#get-sleep-doctor-PM>

Brain Waves (EEG) and Sleep Stages



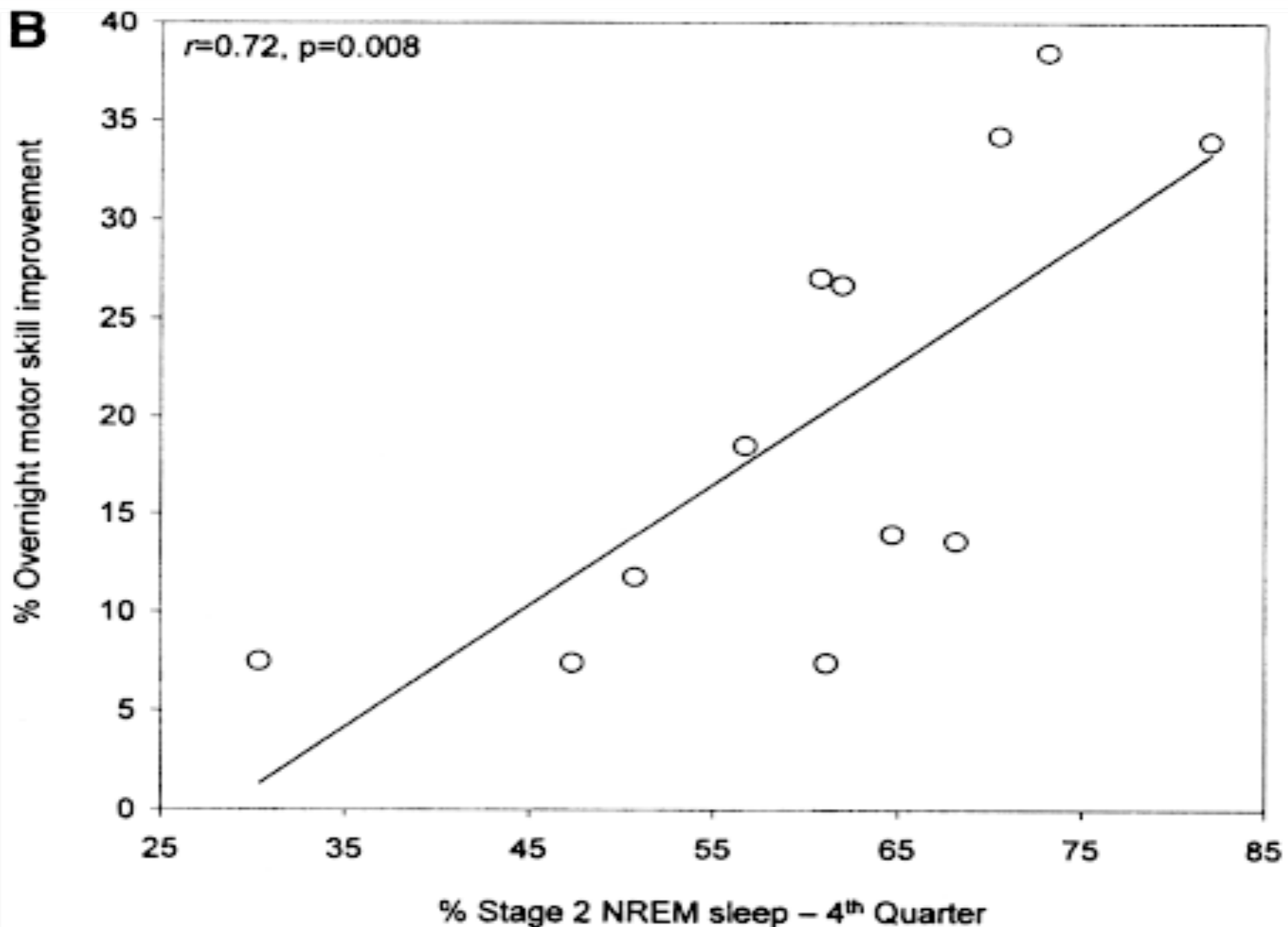
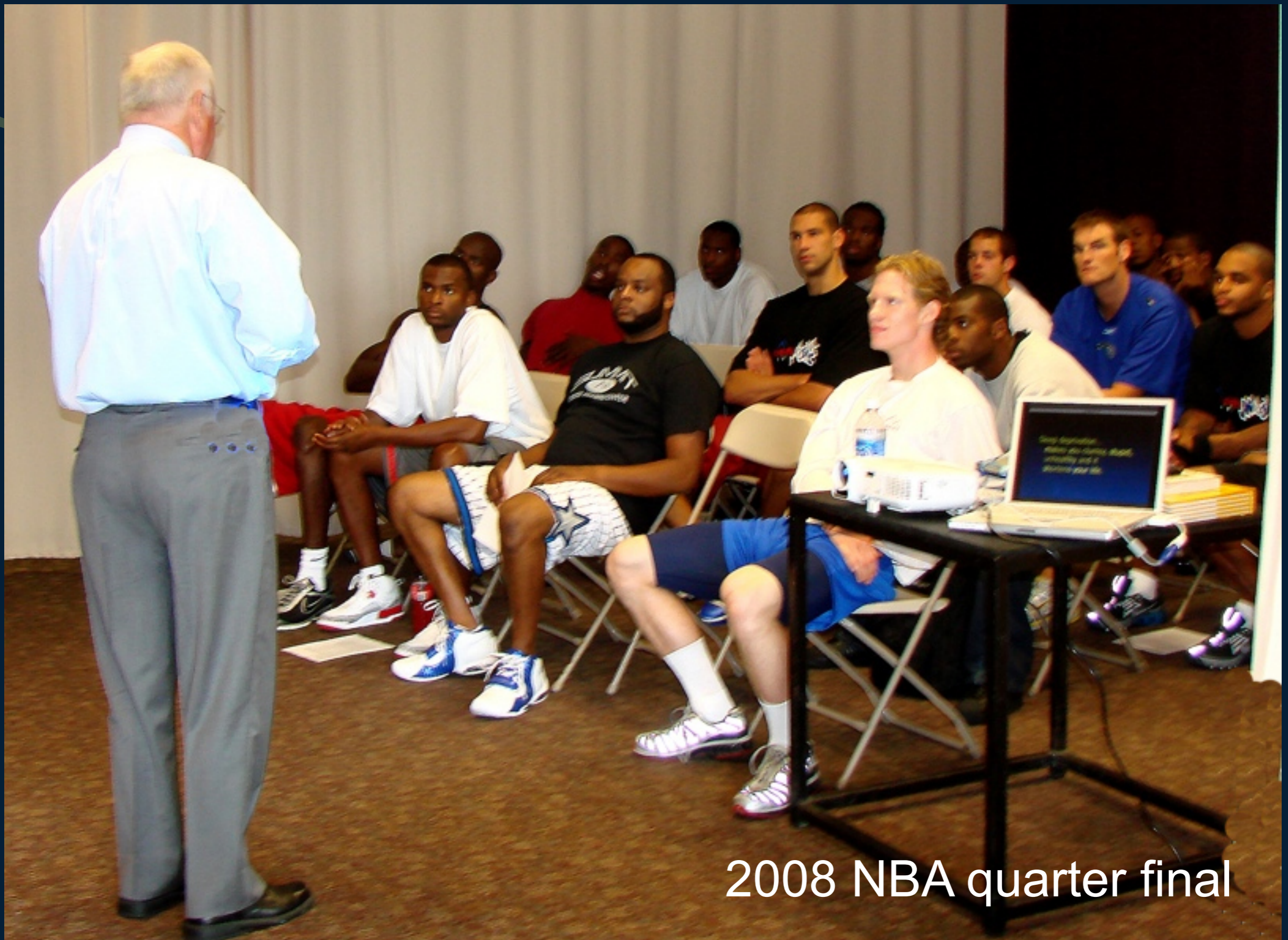


Figure 3. Relationship between Overnight Improvement and Stage 2 NREM Sleep Measures

Improvement in motor muscle memory
and cognitive memory!

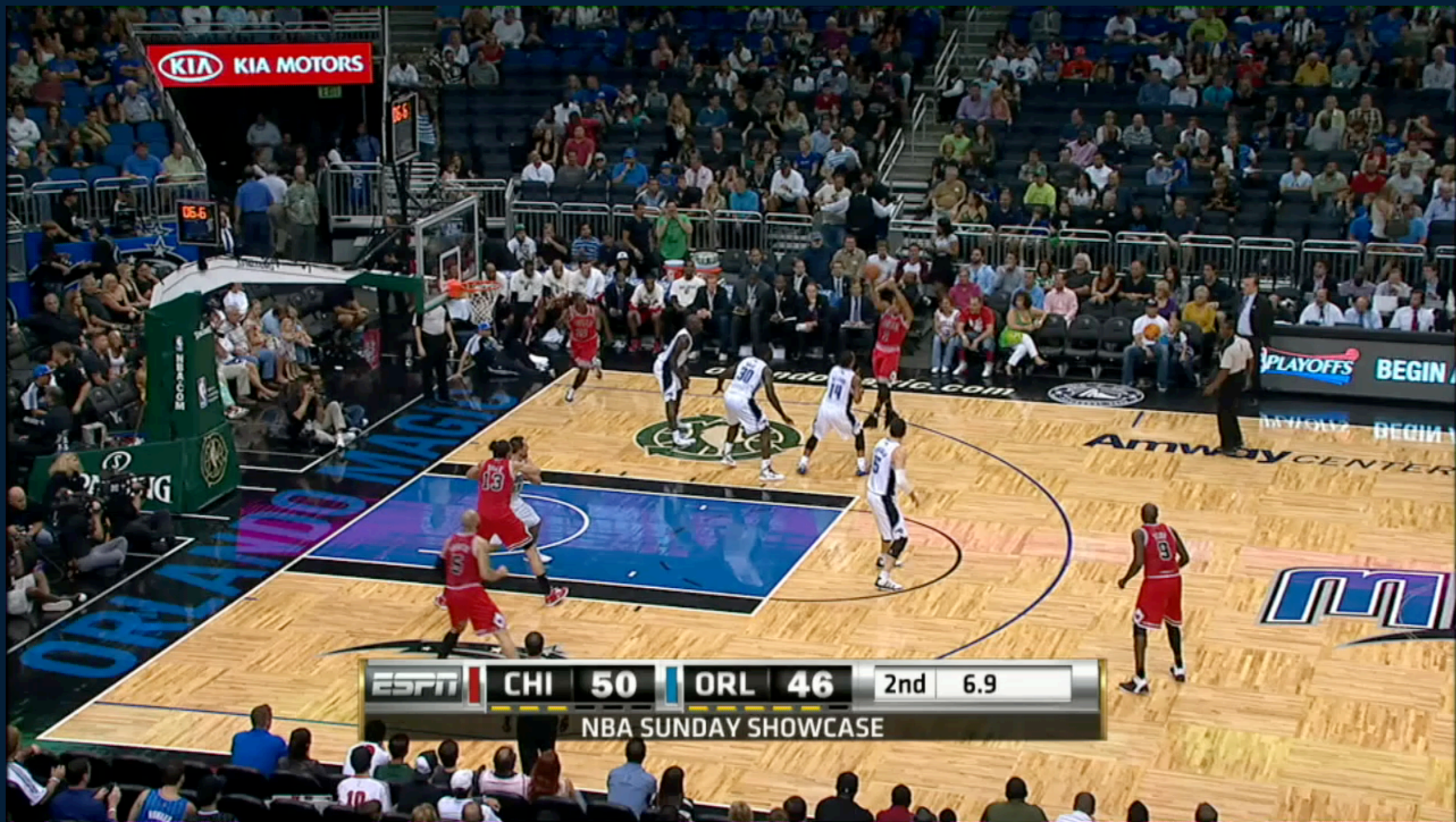


2008 NBA quarter final

Sleep strategies, napping, mental focus, performance, jet lag



Jameer Nelson



KIA KIA MOTORS

05:6

PLAYOFFS BEGIN

Amway CENTER

M

ESPN | CHI 50 | ORL 46 | 2nd 6.9
NBA SUNDAY SHOWCASE

Sleep Is a Necessity



Not a Luxury...

Value sleep - You'll become even healthier and more successful!



Good Night

and

Sweet Rems!

Sweet Rems!

