

Unit 4

Power Napping is Good for the I.Q.

I. Pre-Reading

1. What is the I.Q.? What is the abbreviation from?
2. Do you know “power nap?” If so, what is it?
3. Do you ever take a nap? If so, how long do you usually sleep?
How do you feel after a nap?

Health professionals increasingly recognize the importance of eight hours’ sleep a night. Scientists now believe that sleep is the single most important factor for general health, more important than diet or exercise. Sleep is the only treatment that can claim to restore, rejuvenate, and energize both the body and the brain. The third of our lives that we spend asleep has a profound effect on two-thirds that we spend awake— affecting our mood, memory, alertness, and performance.

Studies show that people in the developed world increasingly spend less time asleep and more time at work or commuting. Dr. Karine Spiegel, at the University of Chicago, has found that the average length of sleep in developed nations has declined from nine hours in 1910 to seven and-a-half hours today. However, we are biologically ill-equipped to function on little sleep; and losing just one or two hours’ sleep a night over a long period of time can have a serious effect on someone’s health.

According to Canadian scientist Dr. Stanley Coren, every hour of sleep lost in a night also causes us to drop one I.Q.¹ point the next day. In a week of five- or six-hour nights, the average person’s I.Q. could drop 15 points: thus, a normally intelligent person starts to have a hard time functioning at all.

Most sleep experts agree that humans are designed to sleep for at least eight hours, but that this should be in two stages: a long sleep at night and a shorter nap in

¹ I.Q. (intelligence quotient) is a person’s level of intelligence measured by standardized tests.

the afternoon. American companies are paying attention to this and are reporting increased levels of alertness in employees who “power nap” at some point during the afternoon, if only for 20 minutes. The argument is that those who are not sleep-deprived are much more efficient at work.

The test used to determine sleep deprivation is called the Multiple Sleep Latency Test, or MSLT. In a MSLT, an individual remains in a darkened, quiet room during the day. According to the theory, the more sleep-deprived the individual is, the less time it takes that person to fall asleep. If it takes ten minutes or longer to fall into a light sleep, the participant is probably getting enough sleep; anything less shows moderate sleep deprivation. However, the time of year seems to affect how much sleep an individual requires. People tend to sleep as long as 14 hours in the winter and six hours in summer, without ill effects.

II. Working with Vocabulary

A. Focus on the Reading

energize	claim	diet	decline
deprivation	determine	ill-equipped	commute
stage	treatment		

1. Scientists now believe that sleep is the single most important factor for general health, more important than _____ or exercise.
2. Sleep is the only _____ that can _____ to restore, rejuvenate, and _____.
3. Studies show that people in the developed world increasingly spend less time asleep and more time at work or _____.
4. Dr. Karine Spiegel has found that the average length of sleep in developed nations has _____ from nine hours in 1910 to seven-and-a-half hours to day.
5. However, we are biologically _____ to function on little sleep.
6. Most sleep experts agree that humans are designed to sleep for eight hours, but that this should be in two _____.
7. The test used to _____ sleep _____ is called the Multiple Sleep Latency Test.

B. Focus on the meaning of the following words

Match the word in A. with its meaning in B. The first one has been done.

A	B
<u> j </u> 1. diet	a. go down in number
<u> </u> 2. profound	b. find out facts or information
<u> </u> 3. commute	c. a method of making people feel better
<u> </u> 4. rejuvenate	d. not having something needed or wanted
<u> </u> 5. decline	e. travel to and from work
<u> </u> 6. stage	f. not having the ability or equipment to do something well
<u> </u> 7. determine	g. make (someone) look or feel energetic again
<u> </u> 8. ill-equipped	h. a part of an activity
<u> </u> 9. treatment	i. very strong; extreme
<u> </u> 10. deprivation	j. what people eat and drink

III. Understanding the Reading

A. Main idea

Check (✓) the statement that you think will be the main idea of the reading.

- 1. The amount of sleep people get affects their brain function
- 2. People should sleep before they take intelligence tests
- 3. People in power are more intelligent because they take naps.
- 4. It is possible to determine if a person gets enough sleep by testing the brain.

B. Comprehension Questions

Answer the questions about the reading.

- 1. How does sleep affect people's everyday life?

- 2. How does the number of hours people sleep nowadays compare with the number of hours they slept in the past?

3. What is the relationship between the amount of sleep people get their I.Q.?

4. How many hours should people sleep? When should they sleep?

5. What happens to workers who take a short nap at work?

6. How much sleep do people need at different times of the year?

C. Discuss the questions.

1. How does a lack of sleep affect you?

2. Will you change your sleeping habits after reading this article? Why or Why not?

3. What is your ideal sleeping schedule? Why don't you always follow it?

IV. Word Study

A. Word Form: Compound Adjective

When a noun is used together with adjective to make a compound, it can never be plural. Look at these examples:

We have a **two-week vacation** from school in March.

It is a **four-hour flight** from Chicago to Los Angeles.

Change the words in **bold** type to hyphenated adjectives and rewrite the sentences.

1. A flight from Los Angeles to London is **ten hours**.

2. High school students in California have a summer vacation for **three months**.

3. It is a long drive from Toronto to Winnipeg. It takes **four days**.

4. It is a short trip from New York to Boston. It is only **200 kilometers**.

5. Maria spent **five hours** preparing her new presentation for the company.

B. Homonyms

Affect : Effect

Affect (v) = influence (มีอิทธิพล หรือ มีผลทำให้เกิดการเปลี่ยนแปลง)

E.g. -Nicotine adversely **affects** the functioning of the heart and arteries.

-The rise in gas prices is likely to **affect** the cost of electricity.

-Scientists are investigating the ways in which the oceans **affect** the climate.

If diseases affect someone = it causes him to become ill

E.g. AIDS seems to **affect** men and women in equal numbers.

Effect (v) = cause; bring about; or produce as a result

E.g. -Let's try to **effect** a lasting peace.

-Education is the only method of **effecting** changes in the world population.

Effect (n) = a result

E.g. -The **effects** of the strike were left right across the country.

-I tried using detergent to remove the stain, but without much **result**.

Effect ยังมีใช้ในสำนวนต่าง ๆ ดังนี้

1. **take effect or** } at a particular time = **officially begin to apply**
come to effect } **or be valid from that time**

E.g. The dentist gave me an injection which **took effect** almost immediately,
and I didn't feel anything.

2. **have an effect on** = **cause a particular kind of change in**
someone or something

E.g. Moderate drink can **have a beneficial effect on** your health.

C. Comparative : The ..., the better

Study these examples:

- What time shall we leave? 'The sooner the better' (=as soon as possible)
- What sort of box do you want? 'A big one?' 'Yes, the bigger the better'
- When you're traveling, the less luggage you have to carry, the better.

(It is best to have as little luggage as possible.)

เราใช้โครงสร้าง The....., the..... กับคุณศัพท์ชั้นกว่า เพื่อแสดงความหมายว่า "ยิ่ง.....เท่าไร ก็ยิ่งเท่านั้น ซึ่งเป็นได้ทั้งเพิ่มขึ้นและลดลง เช่น

- According to the theory, **the more** sleep-deprived the individual is, **the less** time it takes that person to fall asleep. -**The more expensive** the hotel, **the better** the service.

-**The more** I thought about the plan, **the less** I liked it.

Join each half of sentence in **A** with the most appropriate half in **B**. Write out each complete sentence. The first has been done as an example.

A	B
1. The harder you study	a. the more gas it will use.
2. The sooner we arrive	b. the more I missed home.
3. The more I learn about Ted	c. the better it is for your back.
4. The bigger the car	d. the sooner we can leave.
5. The further I traveled	e. the easier it is to keep it clean.
6. The more careless you are	f. the more mistake you'll make.
7. The smaller the apartment	g. the more you'll learn.
8. The harder the bed	h. the more I admire him.

1. (g) The harder you study, the more you'll learn.
2. () _____
3. () _____
4. () _____
5. () _____

6. () _____
7. () _____
8. () _____

D. Interesting Expressions

- have a hard time doing something

E.g. In a week of five-hour nights, the average person starts to **have a hard time functioning at all.**

- pay attention to doing something

E.g. American companies are **paying attention to improving their production**

In this part of the course, we will **pay special attention to** spoken language.

- spend time doing something

E.g. I've **spent the entire morning washing** the floor and **cleaning** up.

Much of my time was **spent studying** financial reports

- take time to do something

E.g. If it **takes ten minutes to fall** asleep, the participant is probably getting enough sleep.

It **took me three hours to type** the final report.

Exercise for practice

Study the sentences in A and B and then write the sentence using "spend"

A. It **took us five hours to climb** to the top of the mountain.

B. We **spent five hours climbing** to the top of the mountain.

1. Marco Polo took several years to travel in the East.

2. Tom will take four years to complete his degree in chemistry.

3. It took the teacher a quarter of an hour to explain the math problem to students.

4. For a long time Nid tried to find the place on the map.

5. Sato takes ten minutes to shave, wash, and dress.
