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## Sleep May Be the Critical Factor for Weight Loss and Health

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(NaturalNews) In an amazingly simplistic view of how things work, we have been told for the last 40 years that fat makes us fat. So we cut out the fat from our diets and discovered that we were not only still fat but unhealthy too. Then we were told that we needed to cut out even more fat and increase our visits to the gym. And to top it off, we were handed a copy of the government approved food pyramid or the diet of the National Cancer Institute and told that this is what we are supposed to eat to reach our ideal weight and be healthy. Now we are fatter than ever, riddled with degenerative disease and dying at an earlier age than our parents did. What are we doing wrong?

A recent study from the United Kingdom reports that the lower the number of hours you sleep, the higher the likelihood you will put on extra weight. These findings apply to all age groups including children. The research team reviewed the findings from 696 studies on the effects of sleep time on weight gain. They found a solid relationship between hours of sleep and risk of obesity. All the studies of adults as well as children showed a significant and consistent negative association between Body Mass Index and hours of sleep.

Another study reports that sleeping too little is linked to increased risk of stroke. While the researchers point out that their findings can be applied only to the postmenopausal women in the study, other experts are saying that the same relationship between sleep and stroke risk is universal.

Is it possible that the risk of obesity is not only controlled by what we eat but also how we sleep? T. S. Wiley warned us about this connection back in the year 2000 in her groundbreaking book *Lights Out*. A number of other studies have documented the adverse effects of sleep deprivation and its heightened risk of obesity and death, but it doesn't seem like we want to listen. Maybe a look at the mechanisms that support this connection will increase motivation.

### **We came out of the dark and into the light**

Up until the early 1900's, average adults slept nine to ten hours a night, especially during the winter months. They were healthy most of their lives and died of old age. They didn't spend their time worrying about heart disease and cancer, and for the most part they weren't obese. The energy of the sun informed them as to what to eat, when to eat, and when to reproduce to ensure there was food for the offspring. They were part of the rhythm of all life on earth. When it was summer they stayed up late in the long days, and ate lots of sugar laden fruits and vegetables.

As a result of eating all those carbohydrates, insulin levels rose and so did the levels of the sex hormones which was a good thing because conceiving a child at harvest time meant it would be born at a time when food to feed everyone was just becoming plentiful. The rising insulin levels saw to it that the carbohydrates from the fruits and vegetables were stored in the body as fat to

tide them over through the winter, and as cholesterol to serve as antifreeze in the cells.

As winter came on and the days shortened, our ancestors went to bed earlier. There was nothing else to do unless they were rich enough to have lots of candles around and wood to burn. They slept until they were awakened by the light of dawn, sleeping for about 9 to 10 hours a night, even 12 or 14 hours a night in the dead of the winter season. There wasn't much around to eat in the way of carbohydrates except for some root vegetables. The winter diet was mainly protein derived from animal products. Researchers in the low fat era have called it paradoxical that our ancestors lived all winter on a diet primarily of meat and animal fat and remained quite healthy. Maybe it's not.

By 1925, most of the big cities in America were lit by the electric bulb, an invention that parallels the discovery of fire, agriculture, and the microchip in its impact on the way we live. Coincidentally, the transportation industry began to bring to our tables foods out of season and electricity gave us the energy to process them. With these events, mankind divorced itself forever from the rhythms of nature and the energy of the sun. Now we can stay up as late as we want to no matter what season it is, and eat lots of carbohydrates every day of the year. And we can be obese and have heart disease and cancer.

Now the average adult is getting somewhere between 6 and 7 hours of sleep a night except for the really motivated who like to brag that they get by on only 4 hours of sleep a night. If we are getting half the sleep our ancestors got when they were tuned into the rhythms of the biosphere, could it be that we will live only half as long as we were meant to live?

In exchange for obesity, degenerative diseases and shortened life, we now have the night shift, cable TV, email, internet surfing, career advancement, quality time, homework, chauffeuring, entertaining, doctor's appointments, sitting in traffic, and going to the gym. It's a wonder we can squeeze in those 6 or 7 hours of sleep. Our parade of activities is powered by our endless supply of carbohydrates.

### **Endless summer**

Electricity has given you the ability to have summer all year round. Since your brain thinks you are still a biological being and thus hooked into that rhythm of life, it is going to perceive all that extended light as summer, and it's going to tell your body to store carbohydrates so you don't starve in the coming winter. Since the light has made it perpetual summer and you stay up late every night, your brain is going to put you into perpetual storage mode and make you crave carbohydrates. So let's make it clear right now that no matter what the National Cancer Institute tells you, it is carbohydrates that make you fat. Dr. Atkins was right, it is impossible to get fat without consuming carbohydrates. Getting fat has nothing to do with eating fat.

Whether you get your carbohydrates from processed sugar, organic fruit, Coca-cola, beans, brown rice, birthday cake, air popped corn, or wheat germ, your body recognizes it as only one thing -- sugar. Whether it's low or high on the glycemic index, processed or natural, it's all just sugar to your body.

It is insulin's job to make sure you have enough food stored up in your body as fat and cholesterol so that you can make it through the winter without starving or freezing. It is only carbohydrates that produce an insulin response in the body. That fat pad you have on your abdomen is made from stored carbohydrates. It is supposed to keep your organs warm in the winter and slowly be burned as energy during the normal famine period of winter when carbohydrates are in short supply.

Mother Nature created a world in which balance and symmetry is evident everywhere you turn. Yin and yang, love and hate, boy and girl, it's all about balance. This reversion to balance is nowhere better displayed than in the body's constant striving to maintain homeostasis. This balance includes night and day, and feast and famine. In a world where balance still ruled, you would never be able to stay up through the darkness or stuff yourself with carbohydrates except in the summer and early fall.

In this out of balance situation in which contemporary life is being lived, our perpetual summer and never ending supply of carbohydrates puts us into a constant mode of feasting to get ready for a famine that never comes. This makes us gain more weight with each passing year until we become really obese. And the solution that's offered to us for all this weight gain is to exercise and thereby further stress a body already stressed by living outside of the rhythms of the biosphere.

### **Exercise and the cortisol response**

Cortisol is our primary stress hormone. It's made and released by the adrenal glands in response to metabolic or emotional stress for the purpose of stabilizing blood sugar and blood pressure, and getting you back on an even keel. Think homeostasis. In excess, cortisol causes a deterioration of metabolic processes with one of the results being weight gain.

What goes on when you get up on that treadmill, lift weights or go jogging? If you do it maybe once a week or so, the release of cortisol will do what it's supposed to do and restore you to homeostasis. But if you are convinced that your weight gain is the result of lack of exercise and you decide that you really need a grueling workout every day, your body and brain begin to perceive that you are in some dangerous situation like being attacked by a wild beast and that's the reason for all the frantic activity. Your cortisol levels skyrocket to make sure you have glucose available to your muscles to fight or take flight. When your blood sugar is high your insulin levels are also high, and when this state is chronic, you become insulin-resistant and weight gain sets in.

### **Sleep and your immune system**

The main component of your immune system is the zillions of bacteria that populate your gut, living in beautiful symbiosis with you. Keep them happy and they will keep you happy.

These thriving bacteria exude endotoxins throughout the day. When the level of endotoxins reaches critical concentration, an immune response is triggered. Sleep is that immune response, induced by the cytokine interleukin-2 produced in response to the high level of endotoxins. If you go to bed shortly after it gets dark, melatonin production will begin as you are falling asleep and continue into the wee hours of the night when prolactin production begins. White cells known as macrophages and leukocytes will be promoted by these two hormones for the purpose of thinning out some of your gut bacteria to restore harmony in the ratio between you and them. But you need at least 8 or 9 hours of sleep for the entire cycle of melatonin and prolactin production to occur. If you don't sleep this long, you do not have time to produce an adequate amount of these critical hormones resulting in an impaired immune system.

Melatonin only gets produced when it's dark. If you sleep with the TV on, have a street light streaming in your window or get up in the middle of the night to raid the refrigerator, you are effectively ending your melatonin production for the night. This is bad for you because it's the melatonin and prolactin of sleep that make white cells, T cells, and natural killer cells (NK) that

seek out and destroy defective cells throughout your body.

Staying up late with the lights on interferes with your melatonin production and the maintenance of your gut bacteria, and therefore your immune response is compromised. Your body is unable to attend to the housekeeping chores it is programmed to do while you are asleep. When this goes on for awhile you become a prime candidate for cancer and other degenerative diseases.

### **What all this means**

Our current genetic makeup is the result of evolution over billions of years. It is only in the last 80 or 90 years that we have had the ability to light up the night and stay awake to watch, so the question of what it all means is yet to be answered. We are in the process of trying to genetically adapt to the constant stream of light and carbohydrates. It remains to be seen if any of us actually make the cut. We have changed our environment and the environment will now change us if we are genetically up to the task. If we aren't, we will go the way of the dinosaur.

## **About the author**

Barbara is a school psychologist, a published author in the area of personal finance, a breast cancer survivor using "alternative" treatments, a born existentialist, and a student of nature and all things natural.

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