

THE THREE PILLARS OF PREVENTION

The WHO (World Health Organization) estimates that “80% of all cases of cardiovascular disease and type 2 diabetes as well as 40% of all cancers can be prevented through the use of three pillars; a healthy diet, physical activity and the avoidance of tobacco”.

TOBACCO

There are three major killers in this country; over eating and poor diet (leading to obesity), excessive use of alcohol, and the use of tobacco. These three killers hide behind and create the top five major causes of death in the United States, including Diabetes, heart disease, stroke, and even cancer. Each of these killers will damage normal body function and destroy the natural immune system. I assume you are working to improving your health, this means, limit your alcohol consumption, control your diet, and stop smoking. The use of tobacco is still the number one cause of death in this country, seen as heart and lung disease.

The use of nicotine patches and gum are extremely effective in a stop smoking program. I also recommend relaxation or stress control therapy as well as hypnosis. But I do not recommend the use of pharmaceuticals, as the risk of serious psychiatric problems including severe depression and suicide are extremely high. And whatever you choose to aid in your stop smoking program, please enlist the aid of a friend, to keep you on track and watch for signs of physical problems that may require stress control or hypnosis therapy.

Enough said; Stop Smoking!

SLEEP

Along with a healthy diet and routine physical exercise we must include sleep. Without the proper sleep you are doomed to fail in your attempts to attain good health. One of the most important ingredients in a healthy life is sleep. Not only is the length of sleep important but the quality of that sleep as well. Below is a scale of the required sleep for progressive age levels, developed by the National Sleep Foundation, National institute of Neurological Disorders and Stroke.

Minimum Average Sleep Requirements by Age

1 to 3 years	12 to 14 hours
3 to 5 years	11 to 13 hours
5 to 12 years	10 to 11 hours
13 to 19 years	9 hours
Adults	7 to 8 hours
Seniors	7 to 8 hours

Neurological studies on sleep and sleep deprivation found that the brain reinforces and intensifies those electrical patterns which maintain memory and learning, during REM (rapid eye movement) sleep, otherwise seen as dreaming. This means that the new cells (formed in the brain every 4 days) become imprinted with the special memory or body function that was originated by the brain since its formation (infancy and childhood) and with continual growth. This would include things like walking and talking, it has been found that people who awoken from long term medicated or medically induced comas will require training to learn such things as walking again. Since medicated comas override REM sleep and dreaming, and without dreaming this needed electrical activity does not occur. Hence without this electrical activity in your brain during sleep, the vitally established memory and learning patterns are lost. Sleep is composed of two cycles; REM (rapid eye movement) and NREM (non – rapid eye movement). NREM sleep is period during sleep seen as total body rest. During

NREM sleep, all body systems decrease their activity, even breathing slows, which may account for sleep apnea (the temporary cessation of breathing during sleep). This fluctuation into NREM sleep is controlled by levels of carbon dioxide in the body. Keep in mind that the healthy brain loses surface cells and re-grows new cells every 4 days. So the continuous re-enforcement of those established electrical patterns is necessary in all ages. With sleep deprivation this vital function is curtailed.

Psychiatric studies have shown, that increasing levels of sleep deprivation cause increasing levels of depression (negative mood and emotions) as well as a progressive increase in the degenerative process affecting cognitive function (perception and memory). Most institutionalized psychiatric patients suffer from varying degrees of sleep deprivation. Severe chronic sleep deprivation can result in psychosis, acute depression, hallucinations and even suicide. In this country there are 750,000 attempted suicides each year, and 30,000 of these attempts succeed. On the other hand, mild sleep deprivation causes an imbalance in Leptin and Ghrelin (your appetite regulators) resulting in weight gain, decreased athletic performance and increased anxiety. Sleep deprivation and their disturbances (loss of REM sleep) are common in children with ADD (attention deficit syndrome). Sleep deprivation in childhood begins at the age of 5 to 6 years and if left unchecked will result in depression in the teen years. It appears that this scenario begins with the introduction of foods containing high glycemic index carbohydrates found in sugar and processed grains, particularly high fructose corn syrup, into the child's diet. Along with the lack of structured sleeping habits, the presence of these carbohydrates delays the onset of sleep and appears to counteract both NREM and REM sleep. This slow accumulative progression decreases not only total sleep time but disturbs sleep quality. This may be a part of the explanation as to the increase in psychiatric disorders and even suicide in teens and young adults.

Most people suffering from lack of sleep don't consider seeking help, they don't view a lack of sleep as a medical problem instead they choose simply to live with it, which could be a life threatening mistake.

The mind provides a form of defense to sleep deprivation, the brain will actually cause momentary lapses in consciousness lasting only seconds, over a prolonged

period of sleep deprivation the seconds can progress into minutes, and all this is completely uncontrolled by the body. So if you are driving a car or operating machinery at the time, then those seconds could become hazardous to your health, and that extra cup of coffee will not make a difference.

Snoring and sleep apnea (the temporary cessation of breathing while sleeping) are health problems that need to be addressed, and both of these problems increase in severity with the loss of REM sleep. And appear to be exaggerated in patients with existing respiratory (Asthma, COPD) problems. The routine use of prescription medications for 'improved sleep' is not advised since these medications diminish electrical activity in the brain resulting in loss of REM sleep. Studies have also found that prescription sleep medications enhance the formation of cancers, and decrease the general life expectancy. Natural remedies for 'improved sleep' include the removal stimulants for four hours prior to sleep (no caffeine, no alcohol, no products containing sugars), decreased stimulation during sleep (no lights, music, etc.). If needed, natural supplements may be used to aid in initiation of sleeping, such as melatonin or L-Tryptophan, 5HTP, and valerian.

Now you ask: what should I do?

- 1.** First make sure that you and each member of your family gets the proper amount of sleep. This means that night workers have no excuse, get the hours needed. If falling asleep or waking more than once (for only brief intervals- aprox. 5 minutes) is a problem, then natural supplements can be used, find one or a combination that suits your needs.
- 2.** Everyone dreams, even children (often seen as 'restless sleep') and this is vital to good neurological health, a lack of dreaming may be due to excessive sugar or carbohydrate intake throughout the day and the use of pharmaceuticals, avoid both.
- 3.** As mentioned before; avoid smoking, which may contribute to sleep apnea and other respiratory problems related to sleep.

Sleep Aid Supplements

There are several very good supplement manufacturers in this country. Below you will find different sleep aids and what they do, also what to look for in dose or strength. You can find my personal preferences in the merchandise catalog.

5HTP—Average adult dose 50 to 100mg 2 to 3 times a day with or without food for treatment of anxiety disorders. And 100mg one hour before sleep as a sleep aid.

This is an amino acid that serves as a building block for serotonin in the brain. Routine use will increase cerebral serotonin which controls stress and improves sleep. 5HTP is closer in the formation of serotonin in the production pathway than L-Tryptophan and more easily taken up by the brain. A boost in serotonin levels in the brain helps to calm anterior cingulate gyrus hyperactivity. In other words it helps to turn off that hyperactive brain thought at bedtime, while decreasing mild anxiety and calming the mind. The most common side effect is mild gastrointestinal irritation which can be relieved by taking with food. DO NOT take with other medications that increase serotonin levels, such as St Johns Wort or L-Tryptophan, or any prescription antidepressants without your doctor's knowledge or supervision.

Again I must repeat; the use of prescription medications including antidepressants is NOT ADVISED, due to the high risk of homicide and suicide as well as cancers attached to these drugs.

L-Tryptophan – Adult dose 1000 to 3000 mg one hour prior to bedtime for sleep.

This is also an amino acid building block for serotonin (neurotransmitter) uptake in the brain. This natural amino acid can be found in meat, milk, and eggs. High levels of it can be found in turkey. Like 5HTP it will decrease aggression and stabilize mood. One of the problems with dietary L-Tryptophan is that significant amounts of it do not enter the brain, but are instead used by the body for the production of proteins and vitamin B3. This results in unusually large amounts of L-Tryptophan for induction of serotonin and sleep. This medication should not be taken with 5HTP or St Johns Wort or prescription medications without the supervision of your doctor.

Melatonin – Low dose starts at .3mg in children and slowly increase to 1mg and up in adults. Most physicians advise not to exceed 10mg one hour prior to bedtime.

This is a hormone in the brain that regulates other hormones and maintains the bodies normal sleep cycle. Darkness actually induces the production of Melatonin, while the increase of light will suppress its formation. This is why people who suffer from jet lag, shift workers, and even those with poor vision have disruption of their natural melatonin production. Consistent use has been shown to decrease the time required to fall asleep and also improve the length of sleep. Some patients report an increase in mental alertness after sleep with melatonin. So far it has not been found to help with primary ADD, but the cause of this is now believed to be linked with the long term use of high glycemic carbohydrates. For this reason Melatonin is recommended for children with sleep disorders along with a high glycemic restricted diet. This hormone is also influential in the production of female hormones and the regulation of the menstrual cycle. This hormone also has strong antioxidant capabilities, protecting cellular components in the brain, which appears to act as a preventative of plaque formation as seen in Alzheimer's disease. Melatonin is both safe to use and non addictive.

Valerian – Typical adult dose 150 to 450mg in capsules or teas, 50 to 100mg for children. This is a recognized herb with efficient anti-anxiety properties. It can be used as a mild tranquilizer or sedative and is also a very potent muscle relaxant. This particular herb has been praised for its qualities and used for centuries. In the middle ages it was called 'all heal' and has been a staple of use in Chinese and Indian medicine for hundreds of years. It appears to work by enhancing the activity of the calming neurotransmitter, GABA. Having a lower potential for addiction, it can be useful for people trying to decrease their use of tranquilizers or sleeping pills. It has also been found to decrease seizure activity in epileptic patients. Generally it takes up to three weeks to feel the full effects of Valerian use, so it isn't the best for short term use. It is not recommended for use during pregnancy or breast feeding, as it passes into the placenta and also into breast milk. Do not use in combination with alcohol, barbiturates or tranquillizers. For

those who have difficulty relaxing prior to sleep, or suffer from adverse anxiety or stress, Valerian can be routinely used as a tablet or tea.

Benadryl – Adult dose 25 to 50 mg with 8 ounces of water one hour prior to sleep. This is an over the counter pharmaceutical prescribed by physicians for sudden onset allergic reactions. It is a rapid acting antihistamine, which reduces soft tissue swelling due to allergic reactions. The major side effects of this drug are dehydration and sleepiness. Benadryl is found in 90% of all commercial sleep remedies. It is useful for mild sleep induction.

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