“The best cure for insomnia is to get a lot of sleep.”
- From the brilliant archives of Senator S.I. Hayakawa

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When I entered medical practice in 1978, there was no such thing as a Sleep Disorder Clinic. Yet the past 38 years have changed all that with waiting lists of people making appointments for help at dozens of such clinics throughout the city. Staffed with well meaning doctors, these clinics have spawned a multi-billion dollar tranquilizer, anti-depressant, and hypnotic medications business, one which promises a quick fix for this increasingly common disorder. Today, yearly pharmaceutical sales of antidepressants and anti-anxiety drugs are well over a billion dollars. It is estimated that about 60 million people in Canada and the U.S. are taking one or more such prescriptions.

This begs the question: Why is insomnia so prevalent in Western society, and is there any merit to a drugless approach?

THE ROLE OF CAFFEINE AND SUGAR

My belief and observation as a clinician is that one major culprit behind any sleep disorder is the combination of caffeine and sugar. Stress, anxiety, insomnia, depression and other nervous disorders are all made worse by excessive caffeine and/or sugar intake. With Starbucks, Second Cup, and Tim Hortons on practically every block of all major Canadian cities doing brisk business serving caffeinated beverages and sugar just about 24 hours a day, one should not be surprised to see a growing number of people struggling with insomnia. Approximately 40% of the adult population experiences insomnia at least occasionally, and for an estimated 10% chronic sleeplessness is at the bottom of health problems like obesity, depression and fibromyalgia. Even those individuals who have just one cup of coffee in the morning may be suffering from insomnia simply because their liver detoxification of caffeine is too slow. Just one cup of coffee in the morning may have an impact on sleep up to 24 hours later.

Common sources of caffeine include coffee, tea, chocolate, ‘energy’ drinks, and herbs like guarana, cola nut, yerba mate, carbonated soft drinks, and over-the-counter medications for the ‘flu, colds, headaches, and weight loss.

Sugar consumption causes a variety of biochemical changes leading to many nervous system abnormalities commonly referred to as ‘reactive hypoglycemia.’ Caffeine, alcohol, and sugar are all hypoglycemic agents. While temporarily elevating blood sugar, the subsequent quick drop in blood glucose levels leads to nervousness irritability, restlessness and insomnia. Low blood sugar reactions caused by a combination of sugar and caffeine are probably the most common cause of sleep disorders that I see in my practice every day. For those who are genetically susceptible, even one cup of coffee a day
will cause the problem. Giving up sugar and caffeine would therefore be the first thing to do if you suffer from insomnia bad enough to require a prescription drug just to be able to sleep.

For those who don’t have issues with sugar, caffeine, or other addictions, your insomnia can have a different cause. For example, the stresses of life, hormonal imbalances (e.g. progesterone deficiency), nutritional deficiencies, or toxic overload (from mercury, cadmium, lead, aluminum, drugs too numerous to list) may be at the root of a deepseated insomnia problem.

Every attempt should be made to diagnose the cause through biochemical testing (blood, urine, hair, stools, etc.) so that treatments can be aimed directly at the cause. Regardless of the cause, many natural remedies can be tried to help people sleep better. The paragraphs that follow here go into these natural alternatives to prescription tranquilizers, anti-depressants and hypnotics.

Insomnia can often be helped by a trial therapy with B-vitamins, including B3 (1000 – 3000 mgs), B6 (100 mgs), and inositol (1000 mgs) in a drowsy state. Based on the results of clinical studies, it has been established that L-theanine is effective in single doses in the range of 50 - 200 mg. It is suggested that subjects with higher levels of anxiety take a dose at the higher end of the effective range (250 – 1000 mg) for best results. While not directly causing sleep, L-theanine helps anyone with a sleep disorder in two ways: 1) by reducing anxiety, and 2) boosting the brain’s levels of GABA (gamma amino butyric acid), an inhibitory neurotransmitter that has anti-anxiety effects. Of course, one could also supplement the amino acid GABA in high doses (1000 – 5000 mgs) before bedtime to induce sleep.

VITAMINS & MINERALS – Insomnia can also often be helped by a trial therapy with high doses of vitamin B3 (niacinamide) 1000 – 3000 mgs, B6 (100 mgs), and inositol (1000 mgs). Although niacin will work for the purpose just as well as niacinamide, it’s best to avoid niacin due to its flushing and itching effect experienced by most people. The flushing reaction is harmless, but annoying nonetheless. Other supplemental nutrients that can help induce sleep are calcium citrate and magnesium threonate in high doses (1000 mg of each before bedtime). Magnesium bisglycinate will also help relax muscles and nerves but the threonate form of magnesium has been shown to penetrate the brain in higher amounts than any other form.

EXERCISE – Regular exercise has been proven to help with sleep. Do it early and do it as often as your health permits. Even regular walking for an hour each morning can have profound sleep benefits.

GREEN TEA, L-THEANINE, & GABA – Green tea, often recommended for its anti-cancer, anti-oxidant, and other health-promoting effects contains caffeine. Why then does it not cause insomnia? The answer lies in its content of a lesser-known amino acid called L-theanine, which renders the caffeine in green tea harmless. L-theanine promotes mental and physical relaxation and decreases stress and anxiety, without inducing drowsiness. L-theanine increases alpha waves, which are present in an awake, relaxed state. To achieve such results, one must drink about 8 cups of green tea daily or supplement with L-theanine capsules. Unlike other anti-stress botanicals, L-theanine does not make subjects drowsy or sleepy the next day. L-theanine does not produce theta waves in the brain, which occur in a drowsy state. Based on the results of clinical studies, it has been established that L-theanine is effective in single doses in the range of 50 - 200 mg. It is suggested that subjects with higher levels of anxiety take a dose at the higher end of the effective range (250 – 1000 mg) for best results. While not directly causing sleep, L-theanine helps anyone with a sleep disorder in two ways: 1) by reducing anxiety, and 2) boosting the brain’s levels of GABA (gamma amino butyric acid), an inhibitory neurotransmitter that has anti-anxiety effects. Of course, one could also supplement the amino acid GABA in high doses (1000 – 5000 mgs) before bedtime to induce sleep.

AMINO ACIDS – The amino acid, tryptophan, is very effective for insomnia. Although it is a natural substance, it requires a doctor’s prescription in Canada (1000 – 3000 mgs. before bedtime). Foods high in tryptophan include a glass of warm milk, bananas, figs, dates, and nut butters. To date, none of these foods require a doctor’s prescription. A remedy available at health food stores is 5-HTP (5-hydroxy-tryptophan) which is a metabolite of L-tryptophan that gets converted in the brain to the sleep-inducing neurotransmitter, serotonin. The usual effective dose of 5-HTP is 100 – 300 mgs. before bedtime, but this is one supplement which can be taken during the day to treat anxiety, depression, obsessive-compulsive as well as eating disorders without causing drowsiness.
L-tryptophan in cases of Fibromyalgia and Chronic Fatigue Syndrome.

**MELATONIN** – Another sleep remedy that has received a great deal of attention in the past few years is melatonin. This hormone, interestingly enough, is made in the body by the pineal gland from serotonin mentioned earlier. Melatonin regulates our sleep/wake cycle, causes drowsiness, lowers our body temperature, and puts our bodies into sleep mode. To assist your body’s melatonin production, turn off all cell phones, TVs, etc, at least an hour before bed, and make sure that your bedroom is pitch-black, with no light coming in through the drapes and no light emanating from devices in the room. Melatonin requires total darkness to be secreted naturally. (And it’s worth noting that melatonin is secreted less and less as we age.) Melatonin has proven benefits in Seasonal Affective Disorder and jet lag symptoms. The usual effective therapeutic dose is one to three milligrams before bedtime, although some authors believe that even half of one milligram is more than enough for sleep induction purposes.

There are bizarre, unproven warnings on bottles of melatonin sold in Canada, in spite of the fact that there is zero evidence that melatonin is harmful in any way. In fact, in very high doses (25 – 50 mg), it has shown a benefit in reducing the spread of advanced breast cancer. The worst thing I have ever seen with people who take melatonin is daytime drowsiness, but taking melatonin a few hours before bedtime instead of directly before bedtime can prevent this.

**FOODS TO AVOID**

Foods high in a phenolic amine called tyramine may prevent sleep by increasing the brain levels of adrenalin. These foods include cheese, alcoholic beverages, chocolate, sauerkraut, bacon, ham, sausages, eggplants, potatoes, tomatoes, and tobacco.

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