This is a new column for the CRG newsletter. Dr. Joshua Lowinsky and I want to share information through this column about the medical aspects of the conditions that affect our clients. Future articles in this column are likely to cover such topics as diet, exercise, nutritional supplements, physiologic aspects of mental health disorders, and medication options for treating disorders including newly developed medications. I would like to use this first column to share information about a nutritional supplement that I frequently recommend: melatonin.

Melatonin is a chemical that we all produce normally in our brains. It has effects as a neurotransmitter in the brain and in signaling changes in activity and triggering the release of other chemicals in other parts of the body. The release of melatonin in the brain is decreased by exposure to light. There is normally a surge of melatonin release when a person is placed in a dark environment after a long period of light exposure as would naturally occur when the sun sets at the end of the day. None of us likely release the amount of melatonin that we would naturally produce, however, because the electric lights and bright television and computer screens we like to use into the dark hours of the night suppresses this release. One of the most noticeable effects of melatonin, either in this natural release or in supplement form, is that it makes it easier for the brain to shut down, get to sleep, and reach a deeper and more restful level of sleep more quickly.

It is in helping with sleep that I usually recommend melatonin. Many mental health disorders in children, adolescents, and adults are associated with disrupted sleep and increased difficulty getting to sleep including ADHD, Autism spectrum disorders, anxiety disorders, depressive disorders, bipolar spectrum mood disorders, and substance use disorders. In most of these disorders, having a consistent pattern of getting adequate sleep will improve the symptoms of the disorder and decrease the irritability, memory problems, and impairment in focus that we experience when sleep deprived. We all function better and feel better after a good night’s sleep.

Melatonin’s use as a sleep aid has been studied in children and adults with a wide range of diagnoses. It has been found to be effective and generally well-tolerated both for short term and long term use. It does not appear to have the problem of developing tolerance, or needing ever higher doses to get the same effect, that is a frequent problem with other sleep aids. Discontinuation, even after use for years, appears to at worst result in a return to the sleep pattern present before melatonin use was started.

Melatonin is available in just about every grocery and pharmacy where the vitamins, minerals, herbal preparations, and nutritional supplements are found. Most stores organize these products by manufacturer, so you may have to look around a bit to see what all of the options are. It comes in liquid form and tablet doses ranging from 0.1 mg to 10 mg and is available in regular release and time release forms. Most pediatric studies have studied 3 to 5 mg doses with a few going as high as 10 mg. Most adult studies have looked at 5 to 10 mg doses. Because the potency of food supplements is not closely monitored and regulated like counter and prescription medications are, it makes sense to start most people at about 3 mg and adjust the dose based on effect. It is prudent to monitor for a change in
effect when changing manufacturers and even from one bottle to the next. Melatonin is usually most effective when taken within thirty minutes of lying down and trying to get to sleep.

The side effects seen most frequently are increased sweating at night and awakening 3 to 4 hours after falling asleep with difficulty getting back to sleep. The latter of these two is usually seen with the regular release form when the dose is too high and will usually resolve with decreasing the dose. If sleep disruption in the second half of the night was present before starting melatonin and does not improve with the regular release form (which it often does), switching to the time release form will often help.

Melatonin has been shown to have other beneficial effects. It is a very potent antioxidant and likely decreases long term risks of cancers, including breast cancer. It has positive effects on the gastrointestinal mucosa and has been shown to have positive effects on gastroesophageal reflux and irritable bowel syndrome in a few studies. Other studies have suggested some mild benefits for mood and anxiety.

No one treatment works well for all people. You should discuss this and all supplements and over the counter medications with your primary medical care provider and all medication prescribers. With those caveats in mind, melatonin can be a very effective sleep aid. It compares very favorably in terms of risks and long term benefits with other sleep aids, both over the counter and prescribed.

For more information about Dr. Rowland and his CRG services, please visit: 
http://www.childrensresourcegroup.com/providers/jason_rowland/

References


