**Potsdam Fibromyalgia Support Group**

**Newsletter**

# August, 2015

# Sleep and FM

 If you have FM, you know how difficult it is to get a good night’s sleep. Many people have trouble sleeping well, but the relentless sleep deficit in FM aggravates symptoms.

**Sleep facts:**

* Insomnia isn’t just trouble falling asleep, but also trouble staying asleep and waking early and being unable to fall back to sleep.
* Sleep deficits contribute to weight gain, cardiovascular disease and diabetes.
* Watching TV, working or playing on your computer can stimulate the brain and make it difficult to sleep.
* The blue light in computer screens prevents release of melatonin, a hormone that makes us sleepy. Normally our body begins to release melatonin several hours before sleep, but computer screens and telephones can prevent this. (See programs for filtering this blue light).

**To sleep:**

**perchance to dream:**

**Ay, there's the rub…**

**(Hamlet)**

* Teenagers are particularly vulnerable to the effects of blue light – reacting to 1/10th as much light.
* People with chronic insomnia tend to have a variety of physiological abnormalities. One is increased release of inflammatory mediators (cytokine IL-6) both at night and the following day. This may trigger immune responses.
* There seems to be a genetic factor contributing to chronic insomnia.
* If good sleepers are sleep deprived, they will experience frustration, anxiety, depression, aggression, decreased emotional intelligence, more negative emotions and negative impact on personal relationships. They are more likely to perceive a neutral situation as a negative situation.
* Rapid eye movement (REM) sleep serves to help us consolidate memories but forget emotional content of memories.
* Although alcohol can decrease the delay in falling asleep, it also decreases the quality of both REM and slow-wave (deep) sleep.

People with chronic insomnia:

* Have different electroencephalogram (EEG) readings than healthy people who are sleep deprived.
* May have decreased sensory gating – that is, the brain responds to minor stimuli that shouldn’t wake a normal person. (This is very cool, as it is related to one of my current research projects looking at sensory gating in FM.)
* Tend to have more negative emotions and thoughts. They tend to be worriers and ruminators. It isn’t clear whether the lack of sleep causes or is caused by these abnormalities.
* Are more critical of multiple aspects of their lives, including sleep quality. This results in greater dissatisfaction even when the actual sleep quality may be adequate.

**OTC Treatment options**

* Over the counter (OTC) sleep aids such as diphenhydramine (Benadryl) or doxylamine (Unisom) may be helpful in the short term, but may be counterproductive in the long term. They may not improve sleep quality, and have a number of potential side-effects, especially if used long-term.
* The supplements melatonin and valerian show inconclusive results in research studies: they seem to help people fall asleep but not improve overall quality of sleep. They may also have side-effects and interactions with other medications. Talk with your doctor or pharmacist to find out if OTC or supplements are safe for you.

**Behavioral approaches** have strong research support for long-term benefit in addressing insomnia:

* Sleep hygiene includes keeping regular sleep hours, exercising (at least 3 hours before bedtime), avoiding caffeine, alcohol and too much liquid before bedtime, keeping the room dark and cool.
* Stimulus control involves training yourself to associate the bedroom with only sleep (and sex). Avoid activities such as reading, working, watching television or using electronic devices in bed.
* Relaxation training helps to relax both body and mind using techniques such as progressive muscle relaxation, guided imagery, and deep breathing. Biofeedback can also be used for relaxation.
* Cognitive therapy addresses beliefs, attitudes and expectations about sleep such as misperception about actual sleep time, sleep needs, or blaming daytime symptoms on sleep.
* CBT-I (cognitive behavioral therapy specific for insomnia) combines the above behavioral approaches.
* While CBT is traditionally provided by a health care provider, research shows that several of the on-line versions are equally effective. The scientific journal Sleep Review compared 6 on-line programs available in 2014. <http://www.sleepreviewmag.com/2014/12/online-options-insomnia-therapy/>. Prices varied from $35 for a program called **CBTforInsomnia.com** to $250 for a 1-year subscription to another program.

Much of the technical information in this newsletter came from:

* Kraus SS, Rabin LA. Sleep America: Managing the crisis of adult chronic insomnia and associated conditions. *J Affective Disorders.* 2012;138:192-212
* The Sleep Foundation at <http://sleepfoundation.org>.

**Gadgets that might help with sleep:**

* On-line CBT-I programs, described above.
* Sleep tracking apps for your phone. When you run these apps, you place your cell phone beside your pillow and the app tracks movement during the night. From that, it can estimate time awake, in deep sleep and light sleep, and it can compute a ‘sleep score.’ LiveScience reviewed several sleep apps (<http://www.livescience.com/49552-best-sleep-apps.html>) and recommended **Sleepbot** and **Motionx24/7**, though none were really accurate in tracking sleep stage. These apps typically offer a ‘smart alarm’ that wakes you up when you are in a light stage of sleep, so you are not woken from deep sleep.
* **F.lux** is a program or app that modulates the colors on your electronic devices (computers, tablets and phones) to decrease the blue light. It is synchronized to your time zone and automatically dims the blue light in the evening.
* Orange tinted glasses may also filter the blue light from electronics, and hence may improve sleep.

# August 3rd Support Group Meeting:

The Potsdam Fibromyalgia Support Group will meet on **Monday, August 3rd at 7 pm**. The topic will be “**To sleep perchance to dream; Aye, there’s the rub…**” the challenge of sleeping well with fibromyalgia. This session will discuss how to develop good sleep habits, what makes a good bed, and the new apps available for tracking sleep (or not).

This newsletter is a joint effort of Clarkson University and Canton-Potsdam Hospital. If you would prefer to receive these newsletters electronically, please send your email address to lnrussek@clarkson.edu. You can access current and previous Potsdam Fibromyalgia Support Group Newsletters on our web site: [www.people.clarkson.edu/~lnrussek/FMSG](http://www.clarkson.edu/~lnrussek/FMSG).

