

UPMC Center for Integrative Medicine

Dedicated to increasing knowledge about safe and effective complementary and integrative medicine approaches.

Complementary Approaches to the Management of Insomnia

By Ronald Glick MD, Carol Greco PhD, Jessie Larson LMT & John Laird ND

Insomnia is a common problem, affecting as many of 30 percent of us (Roth & Roth, 2007). The cost of insomnia in the United States, from treatment, missed work, and worsening of depression and other health conditions, may be as high as \$100 billion a year (Franzen et al., 2008; Van Cauter et al., 2008). The most common treatment for insomnia is medication, although many people do not respond well to it. Sleep medications can be habit-forming, may result in side effects, and either don't work or lose their effectiveness over time for some people. Behavioral treatments can help, but few psychotherapists have the specialized training needed to manage insomnia effectively (Siebern et al., 2010). It's no surprise, therefore, that insomnia is high on the list of reasons that people seek complementary therapies, ranking just below chronic pain conditions (Barnes et al., 2008). This article will discuss some of the complementary therapies for which research shows promise.

Acupuncture: In traditional Chinese medicine, conditions like insomnia or hypertension are believed to involve an excess of energy or *Qi* in the body. In western terms, this state can be seen as hyperarousal. Certain sedating acupuncture points have been found to decrease arousal, and may be helpful for insomnia. Dozens of research studies have examined the use of acupuncture

for insomnia, but the results have been inconclusive, largely because of study-design problems (Ernst et al., 2011). In a small trial conducted here at the UPMC Center for Integrative Medicine, four patients treated with 12 sessions of acupuncture all showed significant improvement in their insomnia (Glick et al., 2009).

We are now in the final year of a research project, funded by the National Institutes of Health, to study acupuncture systematically. As part of the study, we're looking at how people respond to a mild stress to see whether acupuncture helps control the changes in heart rate and blood pressure that can occur. We hope to be able to answer three questions:

- Does acupuncture improve sleep for patients with insomnia?
- Do the benefits last?
- How does acupuncture help insomnia?

Meditation: Mindfulness, or non-judging awareness of the present moment, is about awakening to the fullness of our lives. With practice, mindfulness meditation can reduce our reactivity to stressful events. But is mindfulness meditation helpful for falling asleep and staying asleep?

Several studies support the benefits of mindfulness meditation for sleep. Among a group of 67 participants in our own mindfulness meditation (mindfulness-based stress reduction, or MBSR) classes at the UPMC Center for Integrative Medicine, insomnia and daytime sleepiness were significantly reduced (Greene et al., 2008). In a study of older adults with chronic low back pain also conducted at the center, participants noted improved sleep (Morone et al., 2008). "It has helped me to get back

to sleep more readily when I awake at night" and, "I felt very well-relaxed for sleep, which came quickly," were two comments from participants. Likewise, for people with insomnia who took part in a randomized controlled trial comparing MBSR and the sleep medicine eszopiclone (Lunesta®), the severity of insomnia was reduced and time spent sleeping was increased (Gross et al., 2011). This was true for both the MBSR group and the medication group, and the positive results persisted at a five-month follow-up, with meditation producing slightly more improvement than medication.

How does mindfulness meditation work? How does being more awake and present in one's life improve sleep? It may be that, as we learn the meditative skills of non-judging and concentration, we can more easily let go of worries. Distracting thoughts may drift away, and we drift off to dreamland ... without effort.

Massage therapy: We all know that massage therapy is relaxing, but can it be relaxing enough to promote a more healthful and regular sleep pattern?

Serotonin is a brain chemical that gets converted to melatonin — the brain's natural sleep aide. Cortisol, one of the body's stress chemicals, is increased by insomnia. Massage therapy both helps to boost levels of serotonin and to decrease cortisol (Field et al., 2005). In addition to this relaxing effect massage therapy can help to reduce the pain that prevents many people from sleeping. One study treated patients with low back pain with massage therapy and used relaxation training as a comparison group (Hernandez-Reif et al., 2001). The investigators found that those who received massage therapy had decreased pain and improved sleep, along with higher serotonin levels.

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Insomnia (cont.)

Dietary Supplements: You have tried all of the recommendations for good sleep hygiene (see “Suggestions for Better Sleep” in this issue) but you are still tossing and turning. You’ve heard that melatonin or other supplements might help, but wonder whether they really are effective. There are dozens of dietary supplements that are promoted to help us sleep better. What is the evidence? Most of the research has been performed on melatonin and valerian, either alone or in combination with other substances.

Melatonin modestly reduces the time needed to fall asleep, and improves the subjective quality of sleep, but doesn’t seem to increase the number of minutes that a person actually sleeps while in bed (Buscemi et al., 2005). Melatonin has been shown to be effective in children with chronic difficulty falling asleep (Smits et al., 2001). It is commonly sold as a 3 mg pill, and the recommended dose, taken at bedtime, ranges from 0.3 mg to 6 mg. Sustained-release melatonin may be more beneficial for maintaining sleep.

Valerian root modestly decreases the time it takes to fall asleep, and improves the quality of sleep (Bent et al., 2006). The recommended dose is 400 to 900 mg of an extract, up to two hours before bedtime. You may find that valerian has an unpleasant odor – like

dirty socks, some people say. Most herbal formulas for insomnia are combinations of valerian with hops, lemon balm, passionflower, or California poppy. Each of these herbs has a sedative effect.

A few combination products also add L-theanine or 5-hydroxytryptophan (5-HTP). L-theanine is an amino acid derived from green tea that reduces anxiety. 5-HTP is a serotonin precursor. The research on some of these combinations shows that they promote a modest improvement in the quality of sleep, a reduction in the time it takes to fall asleep, and a sense that the quality of life is improved (Muller & Klement, 2006). A concern with prescription sleeping medications is rebound insomnia — the occurrence of greater sleep difficulties when one does not take the medication. Rebound insomnia is less likely to occur when these combination supplements are discontinued. However, they all have the potential to cause morning drowsiness, although not as much as prescription medications.

Do not combine these supplements with prescription sleep medications or central nervous system depressants, such as alcohol. Because 5-HTP promotes the production of serotonin, it should not be combined with other serotonin antidepressants, except under a doctor’s advice. And because supplements vary widely in quality and purity, it is best to consult with your physician, pharmacist, or a naturopathic counselor.

For references, please see the electronic version of this newsletter on our web site: integrativemedicine.upmc.com

Suggestions for Better Sleep

Our lives are crazy busy, and it’s hard to turn things off and settle down when it’s time to go to sleep. Here are some guidelines to help.

1. **Sleep only at night.** Limit naps if you’re having trouble falling or staying asleep at night.
2. **Watch your habits.** Have no caffeine after 2 p.m. or so, and avoid alcohol and smoking. Also, cut down on liquids in the evening.
3. **Exercise is helpful.** Avoid anything vigorous, however, as it gets closer to bed time.
4. **Bed is for sleeping only** (and perhaps recreational activities). Don’t read or watch TV in bed.
5. **Dark and quiet are important.** Go around the room and cover up any LED lights, and get good blinds. The brain makes melatonin (our natural sleeping aid) only when it’s dark.
6. **Hide your alarm clock.** Point it away from you or put it under your bed. Don’t cheat by looking at it. It will go off soon enough.
7. **You can’t force sleep.** If you’re not falling asleep after a reasonable time, get up and read, listen to soft music, or engage in another quiet activity. Get back into bed when you have trouble keeping your eyes open.
8. **Develop a regular routine.** Get started at around the same time each day.

Compiled by Ronald Glick, MD with consultation from Dr’s. Brant Hasler and Daniel Buysse of the UPMC Sleep Disorders Center.

Welcome New Practitioners!

Kate Sherman, Shiatsu practitioner

Kate has years of experience in providing Shiatsu treatments in a private practice setting. Shiatsu is a form of acupressure traditional in Japan. The therapist uses thumb pressure on specific energy points on the body to help bring relaxation, harmony, and balance to the patient. Focusing on long-term health improvement, this technique may be helpful for a number of conditions. Kate will begin seeing patients at the center on September 5, 2012.

Christine A. Mrazik, M.Ed.

As a clinical psychotherapist, Christine managed a private practice for over fourteen years. She had extensive experience treating all major psychiatric illnesses and the psychological sequelae of physical illnesses in adult and aging adult populations. Christine is also an educator in child and adult settings on palliative care and end of life, grief and bereavement issues.

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Research Opportunities

The UPMC Center for Integrative Medicine is dedicated to increasing knowledge about the effectiveness and safety of complementary and integrative medicine approaches. Other integrative medicine modalities may not have been subjected to the same level of scientific inquiry as western medicine treatments. The Center for Integrative Medicine, in concert with the University of Pittsburgh, is actively pursuing research to support the benefits of these therapies.

CURRENTLY RECRUITING:

- **UPMC Center for Integrative Medicine Research Registry**
- **Low back pain research**
- **Heart Rate Variability for Clinic Patients**
- **The “Feel My Best” study for individuals with lupus**
- **Acupuncture for insomnia**

NEW STUDY:

- **Healing Context Study – Help us design questionnaires to measure patients’ experiences with traditional and integrative medicine.**

New Study at the Center for Integrative Medicine examines patient perceptions of Healing and Health Care.

What contributes to improved health?

It is the attitudes and behaviors of the patient? The expertise and caring of the health care provider? Is it acupuncture needles? Medications? Or some combination of all of these?

Center for Integrative Medicine researchers Drs. Greco, Glick and Schneider and their team are hoping, with your help, to learn more about the important factors that help people to heal. The University of Pittsburgh has received funding from the National Institutes of Health-National Centers for Complementary and Alternative Medicine, to study patients’ ideas about what helps them to improve their health. The overall goal of the project, which is called the HEAL study, is to develop and test questionnaires to measure the important contextual factors in treatment from the patient’s perspective.

Participants in this study will be asked to complete questionnaires on a computer about their attitudes and opinions about their healthcare.

Who can participate in this study?

People who receive services at the Center for Integrative Medicine may be eligible to participate if they:

- have started a treatment at the Center for Integrative Medicine within the past 4 months.
- expect to continue the treatment with their CIM provider for at least several weeks.
- are able to read and understand English.
- are willing and able to complete questionnaires on a computer.

Participants will be asked to complete 2 computer-based questionnaires, each requiring 1 – 1 ½ hours. The computer assessments will take place approximately one month apart and can be completed at CIM or at a remote location with internet access. Participants will be paid up to \$100.

For more information about the HEAL study, call 412-246-5809

or email:

healing@upmc.edu

Have you tried everything for your insomnia?

Would you be willing to try acupuncture?

Who can participate?

You may be eligible to participate if you:

- are between 18 and 60.
- are currently experiencing insomnia.

What is involved?

Participants will receive:

- acupuncture.
- compensation for parking and time.

For more information,

please call

412-623-2374.

UPMC Center for Integrative Medicine

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2012 Lectures and Classes at the UPMC Center for Integrative Medicine
UPMC Employees receive 75 Take a Healthy Step points for attending. All lectures and classes at CIM.

September 2012

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| Thurs. 9/06 – 11/08 | 7 – 8 a.m. | Tai Chi and QiGong (10 Sessions) | \$100 | Joseph Bozzelli, MMQ |
| Thurs. 9/11 – 11/13 | 5:30 – 6:30 p.m. | Tai Chi and QiGong (10 Sessions) | \$100 | Joseph Bozzelli, MMQ |
| Mon.. 9/10 – 11/15 | 2 – 3:15 p.m. 6 – 7:30 p.m. | Yoga Level 2 (6 classes) Yoga Level 1 (6 classes) | \$75 | Alicja Walczak MS, CRS |
| Wed. 9/12 – 11/17 | 5:30 – 7 p.m. | Yoga Level 1 (6 classes) | \$75 | Alicja Walczak MS, CRS |
| Thurs. 9/13 – 11/01 | 6:30 – 8:30 p.m. | Mindfulness Meditation Class | \$300 | Carol Greco, PhD |
| Thurs. 9/26 – 11/24 | 12 – 1:30 p.m. | Mindfulness-Based Anxiety Reduction | Insur. | Gwynn Goldring, LCSW |
| Thurs. 9/20 | 5:30 – 6:30 p.m. | The Alexander Technique: A Proven, Safe, Self-Care Method to Relieve Pain, Stress, and Muscular Tension | FREE | Lisa Levinson, AmSAT |

October 2012

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|--------------------|------------------|---|-------|-----------------------|
| Wed. 10/03 – 10/31 | 5:30 – 7 p.m. | Alexander Technique Classes (5 classes plus 2 private sessions) | \$200 | Lisa Levinson, AmSAT |
| Thurs. 10/18 | 5:30 – 6:30 p.m. | Acupuncture: What is it and How Can it Make Me Feel Better? | FREE | EngKeat Teh, LAc, MAc |

November 2012

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|--------------|------------------|----------------------------------|------|---------------------|
| Thurs. 11/15 | 5:30 – 6:30 p.m. | Living From a Place of Gratitude | FREE | Deborah Conway, PhD |
|--------------|------------------|----------------------------------|------|---------------------|

UPMC Center for Integrative Medicine Team

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Kathy Hecht
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Michael Schneider, PhD, DC
Asst. Prof. of Health & Rehab Science

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Erin Simon, CMT, LLC
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Psychotherapist

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Acupuncturist

K.K. Teh, LAc, MAc
Acupuncturist

Alicja W. Walczak, MS, CRS
Biofeedback, Yoga Instructor

The Center for Integrative Medicine at UPMC Shadyside is a hospital-based center in Pittsburgh that combines natural healing practices with conventional medicine. "Integrative medicine" refers to the incorporation of evidence-based complementary therapies into conventional treatments for patients. Integrative medicine is meant to work in conjunction with traditional medicine, providing a more holistic approach to healing — mind, body, and spirit.

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