

## **Behavioral Approaches for the Treatment of Insomnia**

Prevention of sleeplessness is very much dependent upon the person's ability to relax and learn the art of sleeping well. A number of behavioral methods are aimed at achieving these goals. Behavioral techniques can actually cure chronic insomnia and studies report their effectiveness in nearly all patients with primary chronic insomnia. Although medications are equally effective for helping people with insomnia to sleep, behavioral methods act faster. Behavioral methods are effective in all age groups, including elderly patients. In addition, medications cannot cure this condition and prolonged use frequently results in dependency.

**Specific Behavioral Methods.** Proper sleep hygiene is the first step and should be accompany any behavioral method. A number of approaches are available, but all have the same basic goals:

- To reduce the time it takes to go to sleep to below 30 minutes.
- Reduce wake-up periods during the night

Some experts currently list the following behavioral methods in order of effectiveness:  
**1) Stimulus control** (standard treatment, which receives a high degree of physician support). It may also be helpful for some patients with secondary insomnia caused by a medical or psychiatric condition.

**2) Progressive muscle relaxation.** It may be helpful for older individuals and some patients with secondary insomnia caused by a medical or psychiatric condition.

**3) Paradoxical intention.**

**4) Biofeedback.**

**5) Sleep restriction.**

**6) Cognitive behavioral therapy.**

**7) Sleep hygiene, imagery training, and cognitive training only.**

**8) Stimulus Control.** Stimulus control is now considered the standard treatment for primary chronic insomnia and may be helpful for some patients with secondary insomnia as well.

The primary goal of stimulus control is to regain the idea that the bed is for sleeping. It involves the following:

- Go to bed only when ready to sleep or for sex
- If unable to sleep within fifteen to twenty minutes, get up and go into another room. (People who find it physically difficult to get out of bed should sit up and do something relatively arousing, such as read.)
- Maintain a regular wake-up time no matter how few hours are spent sleeping.
- Avoid naps.

**Progressive Muscle Relaxation.** Progressive muscle relaxation is another effective technique for inducing sleep. It may be helpful for older individuals and some patients with secondary insomnia caused by a medical or psychiatric condition. (One 2000 study of college students reported, however, that although it helped increase sleep time it did

not improve functioning during the day.) It takes about 10 minutes and involves the following:

Focus first on a specific muscle group, typically with the muscles in one foot. Inhale and tense the muscle group for about eight second until the muscles start to shake and be mildly painful. (Do this gently. It is not intended to cause severe muscles contractions.) Release the muscles quickly and let them become loose and limp. Stay relaxed for 15 seconds and then repeat the same muscle group.

Focus on the next muscle group and repeat the sequence. Move progressively from each foot and leg up through the abdomen, chest, then to each hand and arm and then to the neck and shoulders and face.

**Paradoxical Intention.** Paradoxical intention is a psychological approach that is based on doing the opposite of what one wants or fears and take it to extreme. The first step is to make a plan to take such a paradoxical approach to insomnia. Instead of going through activities leading to sleep, the patient prepares for staying awake and doing something energetic.

In some cases, people may take specific psychological barriers to sleep to an extreme limit. For example, if worry is a factor in insomnia, the patient intensifies the worries. Biofeedback. Biofeedback is also effective but requires being monitored with an electroencephalogram (EEG), a device that measures brain waves. Patients are given feedback to recognize certain states of tension or sleep stages so that they can either avoid or repeat them voluntarily.

**Sleep Restriction Therapy.** Sleep restriction therapy may be effective, although evidence is inconclusive. In one 2001 study, patients practiced sleep hygiene and sleep restriction. Sleep hygiene was very helpful during the first two months while sleep restriction led to sustained benefits and deeper sleep. The approach is a systematic method for achieving sleep and restricting the time spent in bed.

The first step is to calculate a person's sleep efficiency number :

Keep a sleep diary for 14 days. Then calculate the average hours of actual sleep and hours in bed. Then divide the average hours slept by the hours in bed. The result, given as a percentage, is the sleep efficiency number. (For example, if a patient sleeps an average of five hours out of seven hours in bed then the result is .714 and the sleep efficiency percentage is 71%.)

The patient's goal is to achieve sleep efficiencies of between 85% and 90%, which means only 10% to 15% of the time is spent staying awake in bed. (Sleep efficiency in older people may fall normally somewhere between 75% to 85%.)

To achieve this goal, the patient takes the following actions:  
Begin by going to bed 15 minutes later than usual the first week.

If 85% sleep efficiency isn't reached by the end of the week, add another 15 minutes before going to bed. Refrain from going to bed even if tired, although bedtime should not be reduced below five hours.

Once efficiency reaches 90% or more, then begin to go to bed 15 minutes earlier each week.

**Cognitive-Behavioral Therapy.** Cognitive behavioral therapy (CBT) is a form of therapy that emphasizes observing and changing negative thoughts about sleep (such as, "I'll never fall asleep"). It also employs actions intended to change behavior. Studies have been mixed on its effectiveness, although evidence is now heavily weighted toward positive benefits. For example, a 2002 study reported that CBT used alone or in combination with medications resulted in improved sleep efficiency and better on-going maintenance of healthy sleep compared to medication alone or sham treatment. In other studies, CBT has even helped older adults, post-traumatic stress victims, and people with insomnia caused by chronic pain, who are all commonly resistant to most therapeutic maneuvers. The success of this approach rests strongly on the skill of the therapist.

**Directed Imagery.** A 2002 study enrolled people whose chronic insomnia was associated with unwanted thoughts and worries. They were given specific positive mental tasks that gave them a sense of positive control (as opposed to their real life concerns, which felt out of their control.) Those images distracted them and allowed them to fall asleep faster.

**Sleep Hygiene.** The term sleep hygiene is used to describe simple behaviors that may help everyone improve their sleep.