

# Headache Treatment and Prevention

## Types of Headaches

The two most common types of headaches are **tension headaches** and **migraines**. The exact causes of most headaches are unknown, but **tension headaches** are associated with muscle tension in the head, face, neck, and shoulders. **Migraines** are related to blood vessel constriction and other changes in the brain. Migraines are often associated with such symptoms as light sensitivity, noise or odor sensitivity, nausea or vomiting, loss of appetite, and stomach upset or abdominal pain. Migraines can be associated with hormonal changes. Both types of headaches can be related to stress, fatigue, emotional conflicts, and depression.

## Stress Management and Biofeedback

Stress is reported as a headache trigger by about 3 of every 4 people with primary headaches. Stress management is designed to improve headache symptoms by altering the body's physiological response when encountering stress. Biofeedback and relaxation methods such as diaphragmatic breathing, progressive muscle relaxation, and autogenic training can reduce muscle tension and dilate blood vessels which may improve headache symptoms.

In fact, biofeedback and progressive muscle relaxation are the most widely accepted non-drug techniques for headache control and prevention. Their effectiveness has been demonstrated during 25 years of research in over 100 studies.

Biofeedback and relaxation training typically produce a 45% to 60% reduction in headache frequency and severity. This is equivalent to the reduction in headache symptoms achieved by many headache medications, but without any of the negative side effects. Some research has indicated greater and longer-term symptom control from stress management training than from prescription pain medications. Research has also demonstrated that the effectiveness of these methods increases with regular home practice. Relaxation is a skill, and like other skills, it can be mastered with time and practice.

Biofeedback training can be helpful in learning to reduce tension and stress in the body. Biofeedback instruments measure physiological reactions to stress, like muscle tension and hand temperature. As the individual uses relaxation strategies to decrease tension and stress, the immediate feedback from the instruments paired with internal sensations of tension and relaxation help to voluntary control over stress response that we typically think of as involuntary. Decreasing tension in the head, neck, and shoulders, and increasing hand temperature can help prevent and manage headaches. Over time individuals gain more awareness of stress and tension in the body, develop greater ability to release it on command, and to react to stress with less tension.

## **Relaxation and Stress Management Techniques for Headache Treatment**

- Diaphragmatic breathing: taking slow, deep, abdominal breaths.
- Progressive muscle relaxation: tensing & relaxing each muscle group systematically.
- Autogenic: Thinking phrases such as “my hands are heavy and warm” while focusing on the hands increases peripheral blood flow and reduces muscle tension.
- Cue-controlled relaxation: repeating a word such as “relax or “peace” while exhaling.
- Music relaxation: listening to calming music while practicing relaxation exercises.
- Visualization: visualizing calm, peaceful places or images.
- Cognitive restructuring: focusing self-talk on positive stress-reducing statements.

## **Headache Prevention Techniques**

- Keep a headache diary. This may demonstrate patterns and headache triggers that can be avoided.
- Practice stress management techniques regularly to reduce the physiological effects of stress.
- Get regular sleep. Too little or too much sleep can trigger headache.
- Eat regular meals. Missing meals can trigger headaches. A healthy diet including complex carbohydrates, low fat, and plenty of water can help prevent headaches.
- Sit up straight. Poor posture can put a strain on neck and shoulder muscles, leading to headaches.
- Get an eye exam. Eyestrain can contribute to headaches.
- Avoid too many over-the-counter pain medications. These may produce rebound headaches when the effects of the medications wear off.

## **Resources**

<http://www.webmd.com/migraines-headaches/guide/relaxation-techniques>

<http://www.webmd.com/migraines-headaches/guide/migraines-headaches-basics>

<http://health.discovery.com/centers/headaches/tension/tension/html>

[http://www.achenet.org/resources/biofeedback and relaxation training for headaches/](http://www.achenet.org/resources/biofeedback_and_relaxation_training_for_headaches/)