

# The Headache Series

by Dr. Martha Rich

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## EXERCISE, REST, AND STRESS

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For people who suffer with frequent headaches, migraines, or other forms of chronic pain, a regular self-care regimen is perhaps one of the most effective tools in preventing a pain episode. Eating well, tracking food triggers, watching your posture, and drinking enough water are all important first steps in creating an effective preventive regimen for pain. Equally important, though, is the balance of exercise, rest, and stress in your life. These three areas fit together like puzzle pieces – each mitigating the negative effects of an increase or decrease in the other.

Creating this healthy balance won't just help prevent pain, though. These three key factors can also have a major influence on just about every chronic disease out there, including diabetes, heart disease, arthritis, as well as many other inflammatory and auto-immune disorders. Whether you suffer from chronic headaches or not, you owe it to yourself to take a look at this important area of self-care for your overall health and longevity.

### Exercise

The importance of regular physical activity cannot be overstated. For people who do not exercise at all, the addition of just 3-4 hours per week (or about 30 minutes per day) of moderate cardiovascular exercise has been shown to reduce the progression of Alzheimer's and dementia in older patients by 50%. For patients with pre-diabetic factors, this same amount of exercise combined with other lifestyle interventions can reduce the progression to frank diabetes by 58%. Post-menopausal women have been shown to reduce the risk of hip fracture by 41% by staying physically active. And for all patients, depression and anxiety can be relieved by up to 48% with the simple addition of regular, moderate cardiovascular exercise. But how does physical exercise work on pain, and specifically how can it help head pain?

Exercise doesn't just work on the area of the body that is exerting. Walking, for example, is not just good for your legs – it's good for your whole body. One of the primary benefits of moderate cardiovascular exercise is to the circulatory system. Strengthening the heart muscle and overall circulation doesn't just help with things like heart disease and hypertension, it also helps with pain. Improved blood circulation and cell oxygenation releases tension in the muscles, and that includes the muscles of the head and neck. Tension and spasms in these muscles can be common headache triggers for many people.

For patients with migraines, studies have shown that improved oxygenation to the brain through moderate exercise can also reduce the frequency and duration of migraine attacks. Some people with migraines, however, can be triggered into a pain episode by exercise. We do not know exactly why this happens, but one theory holds that strenuous exercise dilates blood vessels in the skull. Also, heavy weight-lifting can often cause spasms in the upper body and neck that can bring on headaches and other body pain.

Most migraine sufferers, however, can often still benefit from moderate cardiovascular exercise. Warm up and cool down activities have been shown to help reduce the incidence of exercise-induced migraines, allowing the migraine patient to reap the benefits that improved circulation can have on head pain without triggering a headache. And for those patients who simply cannot tolerate cardiovascular exercise at all, a regular yoga practice can often be a great alternative – offering muscle strengthening, stretching and relaxation techniques, as well as breath control.

If you suspect that you may have exercise-induced headaches, or you have not exercised for a while, be sure to work with your doctor or other qualified health care provider to determine the specific exercises, frequency, and intensity that are appropriate for you.

## **Rest**

Sleep is incredibly important to the body's ability to repair and restore itself. Insufficient or interrupted sleep inhibits this ability and can contribute both directly and indirectly to head and body pain. Studies have shown that otherwise healthy people can experience headaches triggered by even moderate amounts of sleep loss (1-3 hours per night for 1-3 nights). And when this kind of sleep loss becomes chronic, we are often left reaching for an extra cup of coffee or a sugary snack for a quick lift – both of which can trigger headaches.

There are many factors that can contribute to sleep loss, and not all of them are controllable. Parents with young children, for example, often experience regular sleep deprivation that may not be avoidable. Improving a sleep loss situation always comes down to two main categories: mitigating the effects of the current loss and improving sleep habits for the future.

One factor that actually works on both categories is – you guessed it – exercise. Sleep loss is stressful, and exercise is a proven way to release stress and anxiety. It also makes you tired. For many people, the inability to sleep well or long enough is directly related to a lack of exercise, but there are other factors to consider as well. Here are a few areas to look at in addition to exercise when dealing with a period of sleep loss or insomnia:

### *1. What do you do just before bed?*

Reading or watching stress-inducing material right before bed can make it difficult to fall asleep. Also, pay attention to what you might be eating or drinking after dinner. Sugary treats or beverages with hidden caffeine close to bedtime could also be contributing to your problem.

### *2. Is your bedroom restful?*

Protecting the restful quality of your bedroom is especially important for people who have difficulty sleeping. Don't watch TV, play video games, or surf the internet on your phone or tablet while you are in bed. Make sure the room is dark enough. And if environmental noises bother you, consider utilizing a white noise device to create a more restful soundscape.

### *3. Do you snore or wake up frequently gasping for air?*

Many people suffer from mild to moderate sleep apnea. This condition decreases oxygenation to the brain, causing your body to wake frequently to improve breathing. Sleep apnea is a chronic condition that leaves people feeling tired, headachy, and unable to focus most of the time. It is also quite serious and can progress to a point where oxygen is cut off to the brain entirely, causing stroke or even death.

Screening for sleep apnea is simple, and anyone who snores and/or suffers from chronic tiredness should be tested. If you suspect that you or a loved one may be suffering from sleep apnea, make an appointment as soon as possible with a dentist qualified in dental sleep medicine or other sleep specialist. Sleep apnea is often a progressive condition that generally does not improve over time without treatment.

### *4. Are you overly stressed or anxious?*

Anxiety and stress can both contribute to sleep loss. And unfortunately, chronic sleep loss increases both anxiety and stress. It's a circular relationship that often requires a third solution to remedy. Exercise should always be examined as a possible solution, but there are other factors to consider as well which we will discuss next.

## **Stress**

The more we understand about the effects of stress on the body, the more we recognize how important effective stress management can be to overall health and pain management. In fact, it is now estimated that up 70% of primary care visits are stress-related. Headaches and body pain are no exception. Most of my chronic headache patients have stress factors involved in their pain. But how can any of us cope with stress when so many of our stressors seem to be beyond our control? The answers are different for everyone, but there are some common themes among people who handle stress well and even manage to thrive under stressful circumstances.

### *1. Regular exercise*

Next to diet, regular exercise is simply the very best thing you can do for yourself. In relation to stress, exercise increases serotonin levels in the brain – elevating your mood and allowing you to deal with stressful situations in a more positive way. Three to four hours per week of moderate cardiovascular exercise, such as a brisk 30 minute walk each day, and/or a regular practice of yoga or tai chi have all been shown to greatly reduce overall stress, headache, and body pain.

### *2. Relaxation skills*

Relaxation is not sitting on the couch watching TV. In relation to stress, relaxation skills include an ability to let go of the things you cannot control and to stay present in the moment. These are not inherent personality attributes – they are skills that can be learned. Meditation, breathing exercises, and biofeedback are just a few of the more common techniques associated with developing relaxation skills.

### *3. Life/work balance*

A key factor among people experiencing a major stressful event in one area of their lives (loss of job, divorce, death of a loved one, etc.) and handling it well often comes down to a balanced diversity of interests and community. People who are actively committed to multiple aspects of their lives including work, family, friends, community, faith, and personal hobbies tend to handle stressful events in one specific area better than those individuals who place all of their self-worth and identity into one single area.

### *4. A positive attitude*

It's no secret that people with a positive attitude tend to weather stressful events better than others. But positive thinking is not a gift that some people are simply given and others are not – it's a habit that can be developed with practice. Cognitive behavioral therapy (CBT) and Mindfulness Based Stress Reduction (MBSR) are both being used more and more in preventive healthcare with extremely positive results, especially for patients recovering from major health crises related to stress. CBT and MBSR both teach practical skills to help individuals develop positive thought patterns and eliminate the stress related to negative thinking and common thought traps.

We can all benefit from working on our exercise, rest, and stress balance – whether we suffer from frequent headaches or not. Any positive effort made in one of these three key areas will automatically begin to improve the other two, and should show a measurable improvement in your headache frequency, pain level, and duration. And remember with any exercise regimen, please consult with your doctor before making any significant changes to your physical activity level.