**Headaches and Migraines**

**Introduction**

Headaches are a common and debilitating ailment from which most people suffer at one time or another. Headaches have many causes, ranging from structural imbalances to brain tumors. However, many headaches, especially when chronic, are due directly or indirectly to nutritional and biochemical imbalances in the body. Hair analysis research at the Eck Institute has permitted the identification of some of the biochemical causes of headaches. By understanding the causes of headaches, success in alleviating them is greatly enhanced.

The nutritional causes for headaches that will be discussed in this article include:

* muscle tension
* sinus congestion and infection
* toxic metals, especially copper
* hypertension
* allergies and food sensitivities
* reactions during retracing

**Tension Headaches**

Tension headaches are those caused by muscle tension in the neck and back. While structural imbalances, poor posture, or stress can precipitate this type of headache, metabolic imbalances may also be involved.

Diet and muscle tension. Low tissue levels of calcium and magnesium are one cause of excessive muscle tension and muscle cramps. Dietary deficiency of these elements is not uncommon, especially among individuals who consume soft drinks. Soda pop often contains phosphoric acid, which binds calcium and magnesium in the intestinal tract, preventing its absorption. Junk food diets are also notably low in magnesium.

Muscle tension in fast oxidizers. According to hair analysis research, low levels of available calcium and magnesium can occur for other reasons as well. In those individuals with faster-than-normal oxidation rates, calcium and magnesium are excreted more rapidly by the kidneys. This is part of the fight-flight reaction. The lower calcium and magnesium levels are part of an alarm reaction, according to the work of Dr. Hans Selye, MD, that keeps the body in a heightened state of muscular and nervous tension. If the levels fall below critical levels, muscle spasms and tightness can occur.

Muscle tension in slow oxidizers. Deficiency of available calcium and magnesium can also occur in those with a very sluggish oxidation or metabolic rate. These individuals tend to have very high levels of calcium and magnesium on their hair mineral tests. However, these levels indicate that calcium and magnesium are precipitating out of the blood and depositing in the hair and other soft tissues of the body.

This calcium, in other words, is biounavailable. This means that the calcium is present, but not biologically usable by the body. A common example of biounavailable calcium occurs in the elderly, who often lack calcium in their bones, but have calcium deposits in their arteries, joints, kidneys and other tissues.

Poor circulation and muscle tension. Poor circulation is another cause for muscle spasms and tension in some individuals. In particular, people with sluggish adrenal and thyroid glandular activity are prone to poor circulation, which can deprive muscles of the minerals needed for proper contraction and relaxation. Toxic substances can build up in the muscles as well, due to poor circulation, impairing their normal functioning.

**Headache Caused By Sinus Congestion And Infection**

Many people have some degree of sinus congestion or chronic sinus infection. Often this problem dates back to childhood, or may be due to food sensitivities, cranial bone misalignments, smoking, toxic environments, allergies, etc. Because the nasal and paranasal sinuses are so close to the delicate membranes covering the brain, irritation of these membranes due to congestion or infection is a common cause of headaches.

These headaches are usually chronic and may be relieved by anti-histamines or nasal decongestants that temporarily disinflame the sinus tissues. However, through scientific nutrition programs, often more permanent solutions for sinus headaches are possible.

Hair analysis readings of those who suffer with sinus headaches often reveal patterns associated with allergies and/or a slow oxidation rate and low energy levels. When energy is low, proper healing cannot take place. At times, an infection pattern (sodium/potassium ratio less than 2.5:1) is present. This pattern is associated with an impaired immune system.

When the immune system is improved through nutrition and energy levels are enhanced through balancing body chemistry, sinus problems often diminish. At times, food allergies must be addressed. Elimination of allergic foods can cause a dramatic improvement in sinus related headaches.

**Migraine Headaches**

One type of headache, the migraine type, causes extreme discomfort to many people. These migraine headaches can be particularly severe and may last for days and are one of the most debilitating types of headaches. It is often preceded by a prodrome, which may include symptoms such as seeing flashing lights, a halo around objects and feelings of nausea. Women often experience migraine headaches before their menstrual period. Often a migraine headache is one-sided and the headache is made worse by exposure to light.

Hair analysis research has revealed a strong correlation between certain mineral imbalances and the tendency for migraine headaches. When the mineral imbalances are corrected, often the headaches cease. Even long standing cases have been successfully handled using the nutritional balancing approach.

**Nutritional Causes Of Migraine Headaches**

**Elevated Tissue Copper**

High copper levels are probably the most common biochemical cause of migraine headaches. Copper has a stimulating effect upon catecholamine production (epinephrine, norepinephrine, dopamine, serotonin). These chemical messengers are a frequent cause of arterial spasms, or in some way irritate delicate structures within the brain.

The major cause of copper imbalance in our experience is weak adrenal glands. The adrenal glands stimulate the liver to produce ceruloplasmin, the major copper binding protein. When ceruloplasmin levels are inadequate, copper cannot be used by the body. It may become deficient, but more often unavailable copper builds up in body tissues, causing a variety of symptoms. This problem occurs to a greater extent before the menstrual period, which may help account for more migraine headaches at this time of the month.

Other possible causes for copper toxicity include diets high in copper, birth control pills, copper intra-uterine devices, congenital copper toxicity, zinc deficiency due to stress or diet and copper exposure through a water supply or other means.

It is important to note that copper toxicity may be present even though the copper level in the hair is within normal limits. Research at the Eck Institute indicates that copper imbalance is very common today. Over 50% of those tested at Accutrace Mineral Laboratory reveal copper imbalance to some degree. An imbalance may be indicated not only by a copper level greater than 2.5 mg%, but research indicates that hidden copper toxicity is also very common.

**Hair analysis indicators of a hidden copper imbalance are:**

* calcium level above 80 mg% (normal calcium level = 40 mg%).
* potassium level below 4 mg% (normal potassium level = 10 mg%).
* sodium/potassium ratio below 2.5:1.
* elevated mercury level.
* zinc/copper ratio below 6:1 (normal zinc/copper ratio = 8:1).
* copper level below 1.0 mg% (normal copper level = 2.5 mg%).

Additional articles are available detailing the methods available to balance copper metabolism. Nutrients such as vitamin B3, B6, C and folic acid are useful. Minerals including manganese, zinc, sulfur and molybdenum are also helpful. Lifestyle and diet also play a role. However, we find that restoring adrenal gland activity is the most important step in balancing copper levels.

**Low Tissue Sodium**

Low sodium levels on a hair mineral test are associated with low adrenal gland activity. Adrenal insufficiency is a common cause of allergies which may result in a migraine headache.

**High Tissue Sodium**

A high sodium level is associated with water retention that in some individuals may cause pressure upon sensitive nerves in the tiny blood vessels of the brain.

**Low Tissue Sodium/Potassium Ratio**

This mineral pattern is commonly associated with migraine headaches. This may be due to hidden copper toxicity associated with this mineral pattern.

**Low Tissue Iron**

Iron deficiency, with or without anemia, is a frequent cause of migraine headaches. These headaches disappear when tissue iron reserves are replenished.

**High Tissue Iron**

Ironically, a high tissue iron level is also associated with migraine headaches. The most frequent cause of a high iron level is excessive protein catabolism which is indicated by a low sodium/potassium ratio on the hair analysis.

**High Tissue Lead**

Lead toxicity is commonly associated with migraine headaches. Lead plays a role in the causation of migraine headaches by interfering with calcium, iron, zinc and copper metabolism.

**High Tissue Mercury**

Elevated mercury levels are associated with migraine headaches. One possible reason is that a high mercury level is often indicative of elevated tissue copper levels.

**High Tissue Cadmium**

A high cadmium level may be associated with migraines because cadmium displaces zinc in many sites in the body. A deficiency of zinc frequently allows for an excessive build up of copper which is notorious for causing migraine headaches. Zinc is also important to maintain the elasticity of the arteries.

**Other Toxic Substances**

Toxic levels of other metals can cause headaches. Drug reactions can cause headaches. Constipation can cause headaches due to sluggish elimination of waste products from the colon. Toxic headaches most often affect those with sluggish metabolism. These individuals are more prone to constipation and to sluggish liver activity. When the organs of elimination - liver, colon, kidney, lungs and skin - are underactive, toxic substances are more likely to remain in the blood circulation and contribute to headaches.

When the oxidation rate is enhanced through nutrition and when the organs of elimination are assisted by nutritional and other means, the frequency and severity of toxic headaches diminish dramatically.

**Alleviation Of Migraine Headaches Through Nutrition**

A quick-fix for migraines is sometimes successful. The choice of quick remedies depends on the sodium/potassium ratio.

If the sodium/potassium ratio is normal or high an individual should take:

* Calcium - 800 mgs, repeat in 1/2 hour if no relief is obtained.
* Vitamin B6 - 200 mgs and zinc - 2 tablets each, if no relief, repeat in 1/2 hour up to two times.
* Molybdenum - 3 tablets, repeat in 1/2 hour if needed.
* If the sodium/potassium ratio is low:   
  Copper - 1 tablet, repeat in 1/2 hour if needed.

The herb, feverfew, is helpful in alleviating the symptoms associated with migraine headaches. One may have to experiment with several of these remedies.

A complete nutritional program will usually provide better results and prevent reoccurrences. The goal of the program is to alleviate all the mineral imbalances that are associated with migraine headaches. Several hair analysis retests over one year or more may be necessary to correct long-standing nutritional imbalances and adaptations. Both a diet and nutritional supplements are needed for best results.

**Stress And Migraine Headaches**

An important trigger for migraines is stress. Often, until stress is handled adequately, migraine headaches will be difficult to control. There is a simple nutritional reason for this. Stress depletes zinc thus weakening the adrenal glands. This results in a rise in copper levels, which in turn precipitates a migraine attack. Another effect of stress is to increase muscle tension in the neck, which can also aggravate a tendency for migraines. Stress is a common cause of a magnesium deficiency which is a common cause of muscle and vascular tension. Attention to lifestyle and use of techniques such as medication, relaxation and biofeedback are highly recommended to enhance a health program for alleviation of migraine headaches.

**Hypertensive Headaches**

High blood pressure can cause headaches due to the excessive pressure on the delicate arteries in the head. This type of headache should be handled by reducing blood pressure. Often a scientific nutrition program based on hair analysis will reduce an elevated blood pressure. Specific nutritional supplements that may be of help with high blood pressure are garlic tablets 500 mg - 6 per day, niacin 250 mg - three times per day and vitamin B6 - 400 mg per day.

**Headaches During Healing Reactions**

Headaches are a common symptom when the body eliminates toxic metals during a retracing episode. In particular, copper elimination often causes a headache as the copper is mobilized from tissue storage sites and enters the blood stream. Remedies for headaches caused by copper elimination include extra zinc, vitamin B6, molybdenum and sulfur. In some cases, four calcium tablets repeated in half an hour can provide relief.

Elimination of other toxic metals can likewise produce a headache. These headaches usually do not last for more than a day or two and diminish as the toxic substance is eliminated from the blood stream. If this type of headache persists, a temporary reduction in the nutrition program will often cause it to subside.

Other healing reactions can also cause headaches. For example, during a reaction, a chronic sinus infection may become acute for a short time as it is being resolved. This could result in a flare-up of symptoms including a temporary headache. Many subtle changes in body chemistry can produce a change in equilibrium or homeostasis that can cause a transitory headache. These headaches are no cause for alarm and usually pass within a day or two.

**Conclusion**

Headaches can be an annoying and debilitating symptom. Many common types of headaches may improve through the use of nutritional balancing programs, including migraines, sinus-related headaches, tension headaches and those due to high blood pressure. If symptoms do not respond to nutritional therapies, other types of therapy should be sought. Headaches can also occur in nutritional balancing programs; as toxic metals and other toxic substances are eliminated from body tissues.

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