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RED WINES AND MIGRAINE HEADACHES

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About 25% of migraine sufferers find that their headaches are provoked by the consumption of red wines. It has been widely suggested that a chemical constituent, tyramine, is the causative agent. Recently, however, Littlewood and colleagues reported in Lancet findings, which indicate neither alcohol nor tyramine, was the migraine-provoking agent in red wines. They concluded their report by stating, "The next stage will be to identify precisely the relevant chemical agents responsible and establish how they act."

Our research at TEI strongly suggests that the mineral iron may be the migraine-provoking agent in red wines, as red or dark wines are a rich source of iron and alcohol is known to further enhance iron absorption. Excess iron accumulation increases lipid peroxidation, producing cell membrane damage and destruction of sulfhydryl groups (-SH). The -SH destruction results in an inhibition of the enzyme phenolsulphotransferase (PTS). Dexter and co-workers have reported the effects of increased iron/copper ratios causing lipid peroxidation in the brain.

Individuals who may be susceptible to iron-induced migraines are those with increased tissue iron accumulation or overload caused by an impaired re- utilization of iron. This impairment is often found in individuals who have suffered from chronic or severe bacterial infections such as hepatitis, rheumatoid arthritis, and some malignancies. Copper deficiency is frequently associated with these conditions as well.

Other high-iron foods and beverages can act as migraine-provoking substances. European beers also have a higher iron content than domestic beers. Mineral analysis has revealed that many common herbs contain high amounts of iron, particularly comfrey root, black chohosh root, and goldenseal. Foods prepared in iron cooking utensils can also contribute to increased dietary iron intake. For example, cooking an egg in an iron skillet can increase the iron content ten (10) fold, whereas a roast prepared in an iron pot can increase iron content by thirty (30) fold.

Organ meats, especially liver, are a significant source of iron. Individuals with excess tissue iron accumulation may be subject not only to headaches after consuming foods, beverages, or water high in iron but also to arthritis, elevated blood pressure, and even periods of rage or hostility.

We have often seen excess iron accumulation in people living in high-iron regions of the U.S. A recent case was noted in a couple that had retired on a farm. After two to three years, they began experiencing severe headaches, arthritis, high blood pressure, and other health problems that were progressing. Their HTMA results showed a very high iron level, so we tested their drinking water and found the iron content much higher than EPA standards. Upon

changing to bottled spring water and reducing many of the high-iron sources from their diet, a marked improvement in their health symptoms resulted in only a few weeks.

A reduction in tissue iron/copper ratios can also be a causative factor in headaches. An iron deficiency relative to copper decreased monoamine oxidase (MAO) production, resulting in elevated serotonin and epinephrine levels, which produce vasoconstriction. Individuals with a low tissue iron/copper disposition are susceptible to headaches after consuming high-copper, low-iron foods and/or beverages. These include white wines, American beers, shellfish, etc.

In conclusion, if a patient remarks that he has headaches after drinking red wine but is not disturbed by white wines, one should suspect he has an increased tissue burden of iron. On the other hand, if he expresses discomfort with white wines but can tolerate red wines, one should suspect he has a tendency toward excess tissue copper accumulation.