

Unexplained Fatigue and Iron Deficiency

It is well known that **iron deficiency anemia** is fairly common in women of childbearing age. And one of the major symptoms of iron deficiency anemia - the symptom that usually brings the women to the doctor's office in the first place - is **fatigue**.

But what about women who have fatigue, but don't have iron deficiency anemia? I came across a recent article in the Canadian Medical Association Journal (Vaucher et al, CMAJ, doi: 10.150/cmaj.110950, 2012) that asked this very question. A group of clinicians from Geneva Switzerland and the French National College of General Practitioners did a clinical study of women with unexplained fatigue. They enrolled 198 women from 44 primary care physician's offices in France into this study.

All of the women in the study reported severe fatigue, but their hemoglobin levels were normal and their ferritin levels - a protein in the blood that binds hemoglobin - was borderline. The ferritin levels were just below the 50 mcg/L cutoff range for iron deficiency. Because their hemoglobin levels were normal and their ferritin levels were not severely deficient these women were not diagnosed with iron deficiency anemia. So their severe fatigue was considered "unexplained".

The physicians divided the women into two groups. One group received 80 mg of an iron supplement (ferrous sulfate) and the other group received a placebo. The study was a randomized, double blind study. Basically that means that neither the women nor the clinicians knew who was getting the iron supplement and who was getting the placebo. **After 12 weeks the women were asked to evaluate their level of fatigue again. The women receiving the iron supplement reported a 48% decrease in fatigue, whereas the women receiving the placebo only reported a 29% decrease in fatigue. This was a highly significant difference.**

The authors of the paper concluded that in cases of unexplained fatigue in women of childbearing age iron deficiency should be considered even if there is no evidence of anemia.

The authors went on to point out that this was an important consideration in the treatment of women with unexplained fatigue. Specifically, the authors said: "Iron deficiency may be an under recognized cause of fatigue in women of childbearing age. If fatigue is not due to secondary causes, the identification of iron deficiency as a potential cause may prevent inappropriate attribution of symptoms to putative emotional causes or life stressors, thereby reducing the unnecessary use of healthcare resources, including inappropriate pharmacological treatments."

In plain English the authors are saying that iron supplementation is an inexpensive, low risk intervention in women of childbearing age, so it should be considered first in cases of severe fatigue - even if hemoglobin levels are normal. That's because in today's medical system if symptoms like fatigue persist, physicians will inevitably try to treat those symptoms with drugs which may not be needed and are certain to have side effects.

Dr. Stephen G Chaney

P. S. Have you ever wondered why all those pretty tomatoes in the grocery store tastes like cardboard? Well scientists have now come up with an explanation. A group of scientists looked at the mutations that were selected for in the process of breeding tomatoes so that they all had a beautiful, uniform color. It turns out that **the mutations were all in a gene that regulates not only the uniformity of color in the tomato, but the sweetness of the tomato as well. It appears that we can have pretty tomatoes or sweet tomatoes, but not both. That's just one more reason why you might want to pass up all those pretty tomatoes in the supermarket for tomatoes that you grow yourself or get from your local farmers market.**

