

## Know Your Uric Acid Number

*"New research shows low uric acid is associated with Parkinson's and other neurological diseases such as MS, Alzheimer's, Huntington's, & optic neuritis."*

Elevated levels of uric acid are known to be a component of the inflammatory process as seen in gout, rheumatoid arthritis, cardiovascular disease, hypertension, metabolic syndrome, and renal disease. But new research shows low uric acid is associated with Parkinson's and other neurological diseases such as multiple sclerosis, Alzheimer's, Huntington's, and optic neuritis.

You see, normal levels of uric acid are an established antioxidant, so it has definite protective value. Lower levels of uric acid do not offer the same protection. But if it's an antioxidant, how can elevated levels cause oxidative damage like gout or rheumatoid arthritis?

Dr. Richard Johnson, author of the book The Sugar Fix, described it this way, "outside the cell with normal levels, uric acid is an antioxidant; but when uric acid levels are elevated, uric acid seeps into the cell and becomes a pro-oxidant." So



outside the cell it is an antioxidant and inside the cell it can become a pro-oxidant triggering inflammation.

My thanks to Dr. Harry Eidenier for sharing a very interesting study and his therapeutic considerations. A 30-year prospective study known as the Honolulu Heart Program looked at serum uric acid levels in 7,968 males; and of this number, 92 developed Parkinson's. It was later determined that many of the subjects diagnosed with Parkinson's had uric acid levels that were well below the

mid-line of the laboratory range.

Other studies on Parkinson's patients confirmed this information and it was also confirmed via postmortem examination on Parkinson's patients.

Although the study did not investigate causative factors with reduced uric acid, both the literature and clinical evidence indicate that decreased uric acid can be an indication of a need for molybdenum or vitamin B12.

When uric acid is decreased below 3.0 and the MCV is

increased over 89.9 and the MCH is increased over 31.9, the pattern suggests a vitamin B12 need as in B12-2000 Lozenges. However, when the uric acid is decreased below 3.0 with a normal MCV/MCH this pattern suggests a need for molybdenum as in Mo-Zyme Forte and ScentArest.

Keep in mind that the pattern suggesting the need for molybdenum is frequently seen with sensitivities to wine, sulfites, prepared meats, baked goods, etc. Let's consider sulfites briefly.

Sulfite is converted to sulfate by sulfite oxidase which is a molybdenum dependent enzyme. But here's a principal I didn't know. Sulfite splits thiamine (vitamin B1) into its pyrimidine and thiazole constituents, thereby rendering the thiamine ineffective. For this reason any patient who has the subjective need for thiamine: low blood pressure, dysglycemia, brain fog, etc., or the common biochemical indicators like depressed CO2 and/or an anion gap over 14, should have their MCV/MCH and serum uric acid checked. Because with a molybdenum need the supplemental thiamine may be of no value until the molybdenum deficiency is corrected.

Let's come back to gout because Dr. Eidenier has an interesting story that has great clinical value. He and Dr. Sheldon Nelson, a professor at Michigan University, wanted to see which agents would dissolve urate crystals the fastest in a Petri dish at the university. Urate crystals are not only present with gout but common with swollen spinal discs. Quoting him from an email, "We tried many things, but the two that worked the fastest and most frequently were lithium and folate. Hence, in all of the balancing body manuals where gout is a subject, lithium and folate are among the primary support.

This is not to say that black cherries, Intenzyme Forte, etc. don't work. We have seen cases where 10 tablets of Intenzyme Forte on an empty stomach, 6 times a day, when other supplements for inflammation did not work, ameliorated the pain and other subjective indications associated with gout in 2 to 3 days. But lithium as Li-Zyme Forte at high dose (2 per waking hour) and folate at 25 mg a day also proved very effective."

Dr. Eidenier also stresses the importance of a urine test to identify the type of calculi before treatment. Is it oxalate, urate, or carbonate? Some therapeutic agents like B6, magnesium, iodine, EFAs, vitamin D are valuable regardless of the composition of the calculi. However, if the composition is urate, this therapy will not help unless lithium and folate are present.

With carbonate calculi or oxalate calculi, orthophosphoric acid as in Super Phosphozyme is essential, but is certainly contraindicated with urate calculi. Urinary pH measured over six days must also be considered.

Confirming Dr. Eidenier's observations regarding folate and uric acid, I have included two studies linking the poor utilization of folate via MTHFR reductase snips to elevated levels of uric acid.

To me, this field is exciting; we get to be Sherlock Holmes every day as we look at the clues and develop a plan to relieve pain and suffering. More people are looking for someone to help them optimize health rather than rely on pharmaceutical agents with side effects.

Thanks for reading this week's Tuesday Minute edition. I'll see you next Tuesday.