

# Managing NSAID Related Side Effects

***"NSAIDs have serious side effects. Over 103,000 hospitalizations occur each year resulting in approximately 16,500 deaths from NSAIDs alone."***

I guarantee some of your patients are taking aspirin, acetaminophen or NSAIDs without you knowing about it. A good friend had knee surgery and his surgeon gave him a prescription for "Naprosyn" for an entire year without a single word of caution. Commercials now encourage people to take "Nuprin" as a preventative strategy before exercise. Pain... it's a huge market and we need to be the experts.



Without question, NSAIDs have serious side effects. Sometimes the pain is so bad it's worth the risk short term, but the longer NSAIDs are taken the greater the side effect. Just to give you an idea, over 103,000 hospitalizations occur each year resulting in approximately 16,500 deaths from NSAIDs alone. When I use the term NSAIDs here, I am referring to aspirin, acetaminophen or nonsteroidal anti-inflammatory drugs.

Some of the mechanisms or local side effects of NSAIDs

which cause hospitalizations or death are: GI hemorrhage, leaky gut, depletion of vitamin C reserves, inhibition of folic acid, enhancing the formation of leukotrienes, blocking glycosaminoglycan synthesis, slowing down healing of fractures, and the creation of muscle imbalances which further aggravates injury. Joe, if NSAIDs block glycosaminoglycan synthesis or the pathway that makes chondroitin sulfates, that means joint repair will be hindered or stopped. If we are depleting vitamin C stores, we

will have more inflammation. If we antagonize folic acid, we can become anemic and all cellular repair is hindered. If leaky gut is present that can mean increased inflammation as well.

Many people are already low in sulfate and the sulfate molecule is needed to break down the nonsteroidal anti-inflammatory drugs. We get casual with the term NSAIDs, but they are drugs and must be dismantled by the body's detoxification systems.

So if NSAIDs use up the sulfate molecule what happens to the other systems that need sulfate? Well, they work at suboptimal levels. So phase II detoxification will be compromised. But more important to the patient is that low sulfate means impaired cartilage production and repair. It's a vicious cycle. Patients take NSAIDs to reduce the pain, the NSAIDs cause sulfate depletion, leaky gut, further oxidation, liver detoxification impairment and ultimately poor cartilage repair which causes more joint damage.

As part of a good patient history, we record all the drugs and supplements our patients are taking. If they are taking NSAIDs, one of the first questions we should ask is "do they help?" Because if they work, it means there is an essential fatty acid imbalance. We know Omega 6 oils or linoleic acid through a series of intermediate steps ultimately make the PG 1 series prostaglandins. PG1s reduce pain, inflammation, depression; have immune enhancing properties, etc.

The second class of fats called Omega 3 oils, primarily from cold water fish and plants, use linolenic acid and through a series of conversions and co-factors makes EPA, DHA and ultimately the pain and inflammation reducing PG-3. Arachadonic acid makes the painful and inflammatory prostaglandins called PG-2s. As I said, NSAIDS work by blocking a class of enzymes called cyclooxygenase. Cyclooxygenase blocks the release of PG-1s and PG-3s as well as the proinflammatory PG-2.

Let me repeat an earlier statement. When patients have symptom relief with aspirin, acetaminophen or NSAIDs, they have an essential fatty acid imbalance. In other words, they are deficient in a specific oil, can't digest or absorb

that oil, or they are missing the vitamin mineral co-factors that are needed to take the EFA to the beneficial prostaglandin PG-1 or PG-3. We can return the body to a healthy ratio of pain reducing oils with diet and supplementation.

I have attached a handout that will give you more clinical application about the principles we are discussing. But let me share a clinical pearl you may not have thought about. Anyone who is on NSAIDs will have GI problems sooner or later. Until you can help them manage their pain use Gastrazyme to heal and maintain GI integrity. Gastrazyme is one of the unsung heroes of the Biotics line and has been extremely effective for healing all kinds of GI complaints.

Gastrazyme is a combination of vitamin U complex, antioxidants, gamma oryzanol and chlorophyllins. Gastrazyme has been consistently effective for stomach pain and bleeding. Use 3-4 tablets before each meal until the NSAID issues can be resolved.

To get more information on this important area see the link below for an intriguing webinar by Dr. Walter Schmitt. He discusses this topic as well as other common denominators in neuromusculoskeletal conditions in a seminar called "Better Results with Injury, Inflammation & Pain." Find the upcoming seminar date on this page and make plans to attend. You may have heard me refer to neurolingual testing, using range of motion and pain scores to help determine the best nutrients. Dr. Wally Schmitt demonstrates and workshops these principles with you and teaches you how to apply them clinically.

Thanks for taking time to read this week's edition, see you next Tuesday.