COX-2 INHIBITORS

Table of Contents:

See also:

Arthritis: File
Spirulina
Flax/Borage Oil and Omega-3s
MSM
Vitalzym
Sodium Bicarbonate (Baking Soda)

Books:

***The Miracle of MSM* by Stanley W. Jacob, M.D.**
***Conscious Eating* by Gabriel Cousens, M.D.**
***The Tao of Sex, Health, and Longevity* by Daniel P. Reid**
***Fasting and Eating for Health* by Dr. Joel Fuhrman, M.D.**
***Leaky Gut Syndrome* by Elizabeth Lipski**
***Rainbow Green Live Food Cuisine* by Dr. Gabriel Cousens, M.D.**

Articles:

Websites: http://www.rawguru.com/store/product.php?productid=16202

Audio/Video:

Publications:

Organizations:

People:

Integral Nutrition: **Juice Feasting**
MSM

HYDRATION!
Blue-Green Algae (Spirulina, Pure Klamath Crystals, E3 Live)
Vitalzym
Flax and Flax/Borage Oils
Sodium Bicarbonate (Baking Soda) (See work of Dr. Mark Sircus)

Conventional: **aspirin, diclofenac, ibuprofen, indomethacin, naprosyn, piroxicam**

Terms:

BEFORE READING THIS FILE, COMMENTS BY DAVID RAINOSHEK, M.A.:

From my reading on COX-2 inhibitors, and my personal experience having been prescribed them, I can verify that doctors are not looking to dietary/lifestyle solutions first with regards to their prescriptive habits vis-à-vis inflammatory conditions. I had arthritis all through the joints in my body that was crippling—for three years. Of the many physicians that I went to complaining of my symptomology, no MD *ever* suggested dietary change or use of natural supplementation of any kind to help heal my condition. I was prescribed Vioxx, Paxil, Ativan, Tylenol, and Ibuprofen for my specific complaint, but *NO MD* ever said, "Perhaps you need more omega-3s in your diet. Let's remove some of the inflammatory conditions out of your diet. How much water do you drink? Is it hard water? Have you considered taking proteolytic enzymes such as Vitalzym? How is your digestion? Have you used digestive enzymes? Perhaps your bowel is stopped up and this is aggravating your inflammatory disease through autointoxication. Have you heard of MSM?" *None* of this was *ever* said. I was told emphatically that I would have arthritis and Acid Reflux Disease (GERD) the rest of my life. 3 weeks on a plant-based, live foods vegan diet changed all that, and now I understand why. **ALL** of my clients have experienced the anti-inflammatory benefits of a plant-based diet that incorporates the use of supportive and healing nutritional elements such as proteolytic enzymes (Vitalzym), Spirulina, and MSM. It cost me over $50,000 in medical bills and damaging medical advice before I came into live food nutrition. What was the response of my MDs? The same as is outlined by T. Colin Campbell <u>at the end of this file</u>, per his conversations with John McDougall, M.D.

Our MDs are not stupid, cruel, apathetic, or greedy. Many of them unfortunately have a deficiency of training in the field of nutrition, and a complete misunderstanding/lack of appreciation for the importance of dietary considerations and modalities for healing, exacerbated by the profit motives of the pharmaceutical industries who support, cajole, wine-and-dine, and proselytize. Some MDs, such as Caldwell B Esselstyn, John McDougall, Gabriel Cousens, and many other lesser known and courageous are moving philosophically and practically away from the pharmaceutical matrix to implement possibilities that address the underlying causes of our dis-eases.

Concerning my father's experience on this front, a GP, a specialist, and a chiropractor all told him to get in right away for back surgery on his lumbar spine, which was scheduled and then cancelled by my father during my program. He had been crippled with back pain for 2 years. 90 days of Juice Feasting, Vitalzym, MSM, and blue-green algae healed the inflammatory process in his lower back, ***eliminating the need for very expensive surgery***. Yet this sign was on the wall of the his doctor's office:

Town & Country Family Physicians, PLLP

Anthony J. Popek, M.D. **Laurel M. Tucker, M.D.** **Robert C. Vanzant, M.D.**

10497 Town & Country Way, Suite 360 Houston, Texas 77024 Phone 713-341-2100 FAX 713-932-7072

ARE YOU CONFUSED ABOUT ALL OF THE REPORTS ON ARTHRITIS MEDICATIONS?

SO ARE WE !

Vioxx is gone, Celebrex is under fire, Bextra has new warnings associated with it, and Naproxen may be associated with increased heart risk.

Nobody can say with certainty if other medications are safer. There may not be a warning today, but who knows about tomorrow.

Your choices for arthritis seem to be aspirin (known to cause bleeding of the stomach, anaphylaxis, liver damage and kidney disease), or acetaminophen (Tylenol, known to cause bone marrow damage and liver failure).

My suggestion, if you are worried about side effects of these medications, is to buy a good cane and a rocking chair.

You should also probably stay at home, since over 50,000 people die in automobile accidents each year, so driving is obviously dangerous and will probably be banned soon. But then, staying at home is even more dangerous, since most fatal accidents occur in the home.

In the immortal words of Pogo, "we have seen the enemy, and he is us."

This is outrageous. *Completely* outrageous. Instead of giving alternatives or better modalities for healing arthritis, the doctors above insult patients for being concerned about the side effects of drugs.

My father's doctor's response to his healing was the same as the response I got from my MDs. "Great. Whatever you are doing, just keep doing it." Not, "That is amazing! What did you do so that I can look into this for my other patients!" He avoided expensive back surgery, lowered his total cholesterol 70 points, lost 40 lbs, and was feeling great. I ended heart palpitations, arthritis, Acid Reflux Disease (GERD), and obesity (not to mention the need for 10-12 hours of sleep/day). I ask you, wouldn't you think someone in the field of health would be more interested? It would not be nearly so upsetting if I did not live daily with the knowledge that:

(1) people are living with terrible pain moment to moment, and
(2) they can remove the causes of the pain and heal their body without negative side effects.

This is not like selling bad used cars. Poor, uniformed medical advice is ruining the lives of families, and in my line of work, I am reminded of it every day. To be fair, our medical community is dealing with the impossible from their patients: dietary and lifestyle habits that create severe and daunting health problems matched with a populace that is reluctant at best, and completely unwilling at worst, to make the routine changes necessary to avoid the need for pharmaceutical or surgical intervention. Yet proper training of our professionals in nutritional healing at *every level* of the health fields is vitally important at this critical stage of our nation's overall health.

WHAT ARE COX-2 INHIBITORS

Source: http://www.discount-vitamins-herbs.net/cox-2-inhibitor.htm

What is a COX-2 Inhibitor and Why is Inhibiting COX-2 Important?

Cyclooxygenase (COX) is an enzyme naturally present in our body. Scientists discovered there were two forms of this Cyclooxygenase COX enzyme -- COX-1 and COX-2 enzymes.

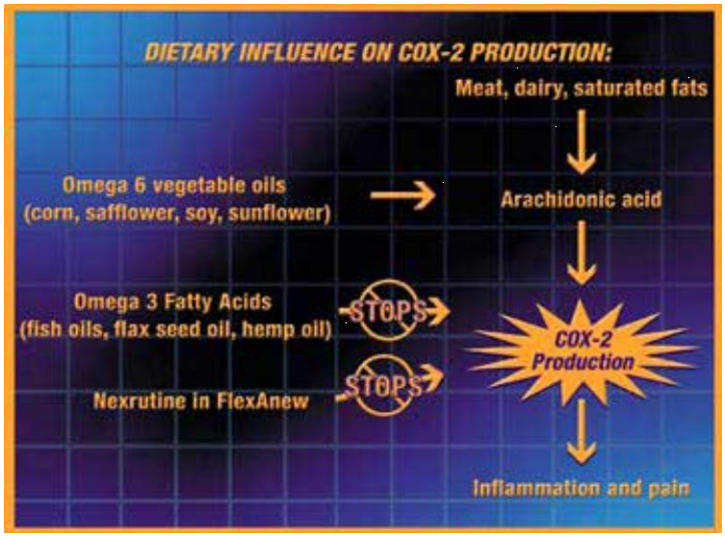
COX-1 enzymes are produced widely throughout the body and is involved in the regulation of day-to-day cellular and metabolic activities such as maintaining stomach lining integrity, regulating blood flow within the kidneys and balancing platelet function. COX-1 enzymes are present in the body always and should not be inhibited.

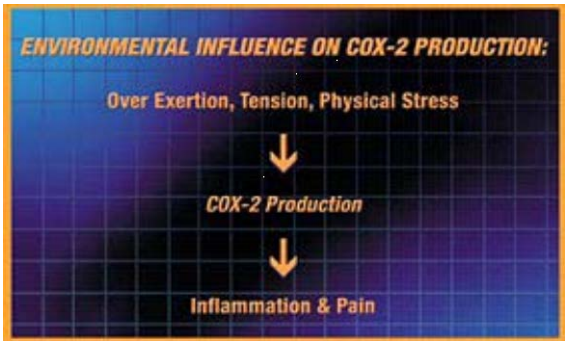
COX-2 enzymes are necessary for inducing pain. The COX-2 enzyme is present in our bodies, ideally on a limited basis; however, factors such as diet, stress, and injury can influence COX-2 production. When COX-2 is produced on a continual basis, constant pain ensues. Therefore, inhibiting COX-2 is an option for muscle pain management [DWR: Albeit not a good one when a nutritional approach is not tried or even considered. A plant-based diet high in omega 3s and using MSM, Cayenne, and Vitalzym can eliminate the need for COX-2 inhibiting drugs that fight the body but do not *heal the underlying cause of COX-2 production*].

What Causes COX-2 to Get Out of Control?

The consumption of high amounts of saturated fat and the omega 6 unsaturated fatty acids, and a consumption of low amounts of omega 3 fatty acids can give rise to the production of COX-2 enzymes. In a state of ideal dietary balance, our Omega 6 to Omega 3 ratio would be 1:1, certainly no worse than 2:1. Unfortunately, because of our modern dietary indiscretions and the general unavailability of wholesome food, most Americans have an Omega 6 to Omega 3 ratio in the range of 10:1 to 20:1!

Simply put, by continually having an unbalanced fatty acid intake we are giving the COX-2 enzyme the raw material to create fire, but not the raw material to put out the fire. **It's not that COX-2 enzymes are "bad" enzymes.** To the contrary, we need them for life. It's just that our diets and the stresses we live in today create way too much COX-2 enzymes, and we don't use the resources to put out the fires.





Is COX-2 production present only in disease states?

No, as mentioned previously, COX-2 enzyme production occurs due to a myriad of factors and COX-2 production does not indicate that you are in a state of disease. The membranes of all cells in the body contain a fatty acid called arachadonic acid. As old cells die and new cells take their place, arachadonic acid is released into body tissues and blood. **COX-1 and COX-2 enzymes act upon arachadonic acid to form molecules called** prostaglandins.

Prostaglandins are compounds that are produced via the metabolism of fats in our diets. These compounds are simplistically categorized as either "good" or "bad." The good prostaglandins are beneficial and constructive to the body while the bad ones, if produced on a continual basis, can be destructive.

It is interesting to note that the consumption of high amounts of saturated fat and the omega 6 unsaturated fatty acids can give rise to the production of the bad prostaglandins, resulting in our recommendation to decrease animal fat intake. From a clinical perspective, one of the enzymes that are involved in the production of the destructive prostaglandins, called cyclooxygenase-2 (COX-2), is the target of nutritional intervention in order to suppress these substances. Hence, the introduction of dietary modifications that inhibit the COX-2 enzyme.

So, even though research is examining the role of excessive COX-2 enzyme production as a factor, healthy individuals can experience COX-2 enzyme production in amounts higher than normal, whether it is from diet, trauma or stress, or foreign invaders.

Why NSAIDs (aspirin, ibuprofen, etc.) Have Major Side Effects

It is estimated that 25% of patients using NSAIDs, such as aspirin and ibuprofen, experience some kind of side effect and about 5% develop serious health consequences (massive GI bleeding, acute renal failure, etc.). This is because both COX-1 and COX-2 enzymes are inhibited to varying degrees by all currently available (1st generation) NSAIDs. These first generation NSAIDS include aspirin, diclofenac, ibuprofen, indomethacin, naprosyn, piroxicam, and others. Studies published so far support the hypothesis that the undesirable side effects of NSAIDs such as gastric erosion and renal dysfunction are due to the inhibition of COX-1 enzymes, while the anti-inflammatory (therapeutic) effects are due to the inhibition of COX-2 enzymes.

The benefits and the side-effects of NSAIDs vary among the 1st generation NSAIDS. Here is the key: Inhibitory potency and selectivity of the conventional, 1st generation NSAIDs for COX-1 and COX-2 enzymes vary greatly. Some NSAIDs (e.g., ketoprofen) are relatively COX-1 selective, some (ibuprofen and naproxen) are essentially non-selective, while others (e.g., diclofenac) are relatively COX-2 selective. However, even COX-2 "selective" NSAIDs still had sufficient anti-COX-1 enzyme activity to cause potent inhibition of gastric PGE2. Thus, at therapeutic concentrations, none of the currently marketed NSAIDs spare gastric COX-1 activity.

ALEVE, VIOXX, CELEBREX AND BEXTRA: WHAT YOU NEED TO KNOW ABOUT ARTHRITIS PAIN MEDICATIONS

Source: http://searchwarp.com/swa7923.htm

Recent controversy about the safety of pain medications for arthritis has left patients and health care professionals alike confused about which medications are safe to use. In fact, a recent survey by the Boston-based Rippe Lifestyle Institute indicated that many people with arthritis are suffering unnecessarily because they have stopped or reduced their use of pain relievers due to confusion about which drugs are considered safe.

The survey also showed that now, more than ever, those with arthritis need to understand the benefits and possible side effects associated with all arthritis pain medications. In order to do so, people with arthritis, their caregivers and families must be familiar with recent news about the two types of drugs most commonly used to treat arthritis pain – non-selective, non-steroidal anti-inflammatory drugs (NSAIDs), and another group of NSAIDs known as cyclooxygenase-2 (COX-2) specific inhibitors.

COX-2 specific inhibitors vs. Other NSAIDs

COX-2 specific inhibitors are the newest members of the NSAID class of medications. Available by prescription only, they became widely used in recent years to reduce joint pain and swelling. COX-2

specific inhibitors work by selectively blocking, or inhibiting, one of the two enzymes associated with inflammation. Some experts think that this selective inhibition may be one reason for some of the negative side effects currently associated with COX-2 specific inhibitors.

Non-selective NSAIDs were developed earlier than COX-2 specific inhibitors and have been widely used to relieve arthritis pain and inflammation for many years. Unlike COX-2 specific inhibitors, non-selective NSAIDs inhibit both major enzymes involved in the inflammatory process, COX-1 and COX-2. The non-selective NSAID category includes a number of different medications that are available in both prescription and over-the-counter (OTC) products.

Timeline of Events

To understand the current state of affairs, it is important to understand the sequence of events. The controversy started when a study published in the October 21, 2004, issue of the *New England Journal of Medicine* cited the COX-2 specific inhibitor, Vioxx as potentially causing "major adverse events," including heart attack and stroke, among patients taking the drug. As a result, Merck (the drug's manufacturer) voluntarily withdrew Vioxx from the market. However, in the months following, the safety of the other available COX-2 specific inhibitors such as Celebrex and Bextra, as well as other arthritis pain medications in the non-steroidal anti-inflammatory (NSAID) class, were also called into question.

Consequently, in February 2005, the US Food and Drug Administration (FDA) convened a special Advisory Committee, made up of members of the Arthritis and Drug Safety Advisory Committees, to review the cardiovascular safety of these arthritis pain medications.

FDA Directive: Stronger Warning Labels for Some Pain Medications

On April 7, 2005, taking into account the recommendations of the Advisory Committee, the FDA issued the following directives:

- Bextra, a COX-2 specific inhibitor manufactured by Pfizer, was withdrawn from the market.

- All prescription NSAIDs must revise their labeling to include a "black box" warning that highlights the potential increased risk for cardiovascular (CV) events as well as the potentially life threatening gastrointestinal (GI) bleeding associated with these drugs. Celebrex, the only COX-2 specific inhibitor remaining on the US market, was included in this directive.

- All OTC NSAIDs (except aspirin) will be required to revise their labeling to include more specific information about the potential for GI and CV side effects, a stronger reminder to follow label instructions, as well as a warning about potential skin reactions.

To further evaluate the potential for increased CV risk, the FDA also announced that all NSAIDs must conduct and submit to the FDA a comprehensive review and analysis of pertinent safety data from clinical trials.

THREATENED: THE TYPICAL MEDICAL RESPONSE TO NUTRITIONAL HEALING

Source: "Big Medicine: Whose Health Are They Protecting?" in *The China Study* by T. Colin Campbell of Cornell University (The most comprehensive study of nutrition ever conducted. www.TheChinaStudy.com)

Now, John McDougall runs a highly successful "lifestyle medicine" program with his family's help, writes a popular newsletter that he makes freely available (http://www.drmcdougall.com), organizes group trips with past patients and new friends and has more time to go windsurfing when the wind picks up on Bodega Bay. This is a man with a wealth of knowledge and qualifications, who could benefit the health of millions of Americans. He has never been challenged by any of his colleagues for physician "misbehavior," and yet the medical establishment does not want his services. He is reminded of this fact all the time:

> **Patients will come in with rheumatoid arthritis. They'll be in wheelchairs, they can't even turn the key on their car. And I'll take care of them and three or four weeks later, they'll go back to see their doctor. They'll walk up to their doctor, grab their hand and shake it hard. Doctor will say; "Wonderful." The patient, all excited, will say, "Well, I want to tell you what I did. I went to see this Dr. McDougall, I changed my diet, and now my arthritis is gone." Their doctor simply responds, "Oh my goodness. That's great. Whatever you're doing, just keep doing it. I'll see you later." That's always the response. It's not, "Please, my god, tell me what you did so I can tell the next patient." It's, "Whatever you're doing, that's just great." If the patient starts to tell them they changed to a vegetarian diet, the doctor will cut in with, "Yeah okay; fine, you're really a strong person. Thanks a lot. See you later." Get them out of the office as quickly as they can. It's very threatening... very threatening.**

I TOLD YOU SO, COX 2 DRUGS KILL!

By: Dr. William Wong, ND, PhD.
http://www.drwong.us/ArchivedCox2DrugsKill.htm

The Franciscan in me tries to restrain me from gloating and saying I was right all along, but for now I'll allow myself the pleasure of saying about Vioxx and the rest of the COX 2 crowd, "I told you so"!

It was some 6 or so years ago when the folks from Searle, a pharmaceutical company owned by Monsanto, came over to a booth I was working at a American Academy of Sports Medicine convention and proudly proclaimed that their new COX 2 drug Celebrex would put the enzyme company I was

then working for out of business. Heady with their latest research, they said the COX 2 drugs did not have ANY of the side effects of the COX 1 (i.e. Aspirin, ibuprofen, naproxen etc), and that no one would need such a crude and natural thing as enzymes to control inflammation when just a couple of doses per day of their new wonder drug would do so with out all the fuss of having to take large numbers of enzyme pills per day. (Pfizer bought Searle from Monsanto some years ago and now owns Celebrex).

Their initial research was shown to be false by actual use of the drug. As the Wall Street Journal article on Celebrex recounted on April 19th of 1999, Celebrex was not side effect free, and indeed in the 3 weeks since its release 11 patients taking it had died of the very things that were not supposed to happen from using COX 2 drugs i.e. kidney failure and intestinal hemorrhage! So the lab eggheads at the drug companies were wrong in their conclusions about COX 2 inhabitation and its lack of side defects. So much for knowing biology over physiology.

Now medical research says, that the egg heads were not only wrong about the COX 2 drugs not having the kidney damage, liver toxicity and intestinal wall thinning effect of the COX 1's, as they first claimed; one COX 2 drug, Vioxx, has now been shown to cause heart attacks and strokes! And, it stands to reason that if one drug that works on the COX 2 pathway has those bad effects, the others can't be far behind. So thinks the US FDA, the British National Health Service and Dr. Garret FitzGerald of the University of Pennsylvania who wrote in an article on that for the New England Journal of Medicine. (1).

Now here I'm going to step on some natural health toes; I've said for some time that the natural COX 2 inhibitors such as boswella and turmeric would have the same side effects as the COX 2 drugs if used long term and if they truly work as claimed in the COX 2 pathway. Some will tell me that these herbs won't do that because they are natural and natural things can't hurt you! That is a grave misconception! Tobacco is natural, opium is natural, and coca plants that make cocaine are natural. Vitamins A, D and Niacin are all natural and naturally toxic with the ability to cause death by liver damage if taken in excess! Just because something is natural does not mean that it is harmless!

Since all the methods to control inflammation from COX 1 and COX 2 to Corticosteroids are dangerous, deadly and have seriously bad side effects, does it not make sense to control inflammation, with non-toxic enzymes! (2). Inflammation we now know is the major cause of heart and vascular disease; it is the root cause of pancreatic dysfunction leading to diabetics and pancreatic cancer. Inflammation has been found to be the root cause of Alzheimers and various other life threatening diseases. (3). But in the search to control inflammation we should not take something that will kill us faster than the inflammation!

Systemic proteolytic enzymes are nature's non-toxic way to control inflammation! Over and above that they are the only way medical, natural or other wise to eat away at fibrosis (the second major cause of blood clots and internal organ dysfunction). Systemic proteolytic enzymes have over 200 peer reviewed hospital and university studies to prove their effectiveness and safety. Over and above that, there is over 40 years of clinical experience in Central Europe and Japan where oral systemic enzymes are used widely in standard medicine. Given the choices of death by inflammation, death by COX 1 drugs, death by COX 2 drugs, or death by Corticosteroids would it not make sense to choose life by lowering inflammation and fibrosis naturally and without toxicity using systemic enzymes? There is no need to kill Peter to help Paul because when we do so both Peter and Paul die.

References:

1. Researchers Expand on Dangers of Vioxx to Drugs in Same Class, Marc Kauffman and Brooke Masters, Washington Post, Thursday Oct. 7thy, 2004 page A03
2. Bodhankar, S.L.: Acute and Sub acute oral toxicity of Vegpanenzyme in mice and rats. Abstract ID 698, Society of Toxicology 2004 Meeting, Baltimore Maryland USA
3. Quenching the Fires of Inflammation Article Life Extension Foundation Magazine June 2004 http://www.lef.org/magazine/mag2004/jul2004_cover_quench_01.htm

Resources:
Vitalzym by World Nutrition 800 548 2710 www.worldnutrition.info
Specialty Enzyme 909 613 1660 www.specialtyenzyme.com

PURE KLAMATH CRYSTALS

Pure Klamath Crystals
The unique ecosystem and crystalline, pure waters of Upper Klamath Lake in Oregon provide an abundance of the synergistic elements necessary to grow a concentrated, deeply nourishing superfood — Klamath Lake algae (Aphanizomenon flos-aquae). This rare superfood is a protein powerhouse. It provides a highly bioavailable protein that is 80% assimilated in our bodies (compared to meat protein, which is 20% assimilated), and its amino acid profile is optimal for humans. Klamath Lake algae is also the world's most concentrated source of chlorophyll, a valuable phytonutrient considered by many to be one of nature's most cleansing and regenerating substances.

Klamath Lake algae's unique growing environment endows it with valuable attributes not found in other algae. Because Klamath Lake rests in an ancient, mineral-rich volcanic bed, the algae grown in it is a superior source of naturally occurring minerals. Of particular value to many people are the distinctive peptide molecules and phycocyanin that Klamath Lake algae provides. The unusual peptide molecules found in Klamath Lake algae are precursors to two important brain foods: glycogen and neuropeptides, which help enhance and heighten mental clarity. Klamath Lake algae's phycocyanin, the pigment responsible for its brilliant blue-green color, has been shown to inhibit the COX-2 enzyme, which is responsible for inflammation. The amazing array of highly beneficial constituents in Pure Klamath Crystals™ makes it one of the most balanced and complete sources of vitamins, minerals, trace elements, nucleic acids, essential fatty acids, phytonutrients and antioxidants, including beta-carotene, on the planet. As a result, it has a remarkable capacity to help nurture and sustain exceptional physical and mental health.