

Anti-inflammatory drugs and heart disease

The group of drugs being discussed here are called non steroidal anti-inflammatory drugs (NSAID). Properly used, they are highly effective in suppressing chronic pain arising from joints, bones and muscles (for example, arthritis affecting the hip, knee, lower back, neck, shoulder or other sites).

These drugs act by suppressing the inflammatory responses to the chronic injury. In medical terminology, they inhibit cyclo-oxygenase ("COX") activity which, in turn, suppresses prostaglandin E synthesis, which is involved with the inflammatory process.

Enough of that; the reason for the insertion of this information is that it explains the use of the symbol "COX" and of "COX2" drugs. You will see some NSAIDs in the supermarket but most are available only on prescription, either as a primary pharmaceutical agent, or as a generic substitute when the initial drug patent has expired. Here is an incomplete list of most of NSAIDs. You may be taking one.

"COX" general NSAID

Proper name	Primary proprietary name	Generic name
Diclofenac	Voltaren	12 or more
Indomethacin	Indocid	Arthrexin
Sulindac	Clinoril	Acilin
Meloxicam	Mobic	-
Piroxicam	Feldene	6 or more
Ibuprofen	Brufen	Rafen
Ketoprofen	Orudis	Oruvail
Naproxen	Naprosyn	Inza, Proxen

In some people, these drugs have side effects, such as indigestion, gastritis, aggravation of stomach ulcers, bleeding from the stomach and other features (for example, fluid retention, higher blood pressure). However, it has been long assumed that, for most people, the benefits (pain suppression and improved mobility) outweigh the hazards. Then along came COX2 anti inflammatory drugs, which were more selective in their action, sparing most people the potential gastric upsets. These 'new generation' drugs measured up to the

claim that they were less likely to upset the stomach.

COX2 NSAIDs

Proper name	Primary proprietary name
Celecoxib	Celebrex
Rifecoxil	Vioxx

COX2 NSAIDs and heart attack

These drugs proved to be extremely effective. However, after a time, observations, case reports and follow-up data seemed to show that COX2 NSAIDs possibly led to an increased chance of heart attacks. Vioxx was voluntarily withdrawn from use by the pharmaceutical company which produced it. It now appears that the other drug, Celebrex, possibly has similar effects through continued use, particularly when taken for many months on a regular basis.

Because of the possible association between COX2 NSAIDs and heart attacks, many people were switched back to the earlier COX NSAIDs. Now studies of possible adverse effects from taking COX NSAIDs suggest they, too, may lead to greater chance of heart attack if taken on a regular long-term basis.

What should you do now?

The answer lies with each individual. You need to weigh up the balance between pain control and risks. It seems that if you are at high risk of heart attack (through elevated risk factors including a positive family history), you should try to avoid taking NSAIDs of any type and try other forms of pain relief.

If your risk of heart attack is low, it seems reasonable to take the drugs in as small a dose as you can to control pain. You should avoid taking these drugs regularly for months or years. That is, you should use them to control pain rather than to prevent pain. We shall see. There are no hard rules and facts about balancing acts for the patient or for the prescribing doctor.

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