Triple Relief

Stock #1851-3 (90 capsules)

According to a report published in the *American Journal of Medicine*, conservative calculations estimate that more than 100,000 patients are hospitalized every year for gastrointestinal (GI) complications resulting from the use of nonsteroidal anti-inflammatory drugs (NSAIDs) such as acetaminophen (Tylenol), aspirin, ibuprofen (Advil) and naproxyn. In addition, at least 16,500 NSAID-related deaths occur each year, just among arthritis patients alone. The report further pointed out that "the figures for all NSAID users would be overwhelming, yet the scope of this problem is generally under-appreciated."[1,2]

NSAIDs such as aspirin or ibuprofen have been found to help relieve pain by inhibiting the activity of an enzyme known as cyclooxygenase-2 (COX-2). The COX-2 enzyme stimulates the release of hormone-like compounds called prostaglandins, which cause inflammation and pain. The body naturally activates COX-2 in response to injury and inflammation in order to combat infections and aid in the healing of injuries. However, over-production of COX-2 can cause chronic (long-term) inflammation and pain, such as in the case of arthritis. Unfortunately, although NSAIDs block the action of COX-2, these drugs also inhibit COX-1, another form of the enzyme that is responsible for maintaining the integrity of the stomach lining and regulating blood flow within the kidneys. By inhibiting COX-1 activity, NSAIDs block some important functions within the body, such as the repair and maintenance of the stomach lining. The prevention of COX-1 has caused gastrointestinal bleeding and varying degrees of gastric (stomach) ulcerations, perforations or obstructions in one-third to nearly one-half of patients taking NSAIDs.[3-7]

In light of the dangerous and even fatal side effects of NSAIDs, researchers have determined that a more effective and safer approach to pain-relief is to selectively inhibit COX-2 activity, without blocking the protective effects of the COX-1 enzyme. Prescription COX-2 inhibitors such as Celebrex were initially praised for their ability to produce significantly less gastrotoxicity than NSAIDs. However, in April 2001, in response to demands from the U.S. Food and Drug Administration, Pharmacia Corporation, the manufacturer of Celebrex, issued a letter to its doctor customers stating that "serious gastrointestinal toxicity such as bleeding, ulceration, or perforation of the stomach, small intestine, or large intestine, can occur at any time, with or without warning symptoms, in patients treated with NSAIDs, including Celebrex."[3,6]

Fortunately, there are a number of herbs that have a long history of use for relieving pain and inflammation. Plus, more recent research has found that certain herbs contain phytonutrients that appear to safely and significantly inhibit COX-2 activity, without affecting the protective beneficial action of COX-1.[5]

NSP's **Triple Relief** contains a blend of herbs that have been shown to provide effective pain-relief for inflammatory disorders such as low back pain and arthritis. Triple Relief provides a powerful combination of herbs that have demonstrated the ability to selectively inhibit COX-2 activity, as well as the ability to block the production of other substances that sustain inflammatory conditions once they are triggered. Once more, unlike NSAIDs, Triple Relief helps relieve pain and inflammation without causing gastrointestinal irritation or damage and without contributing to the deterioration of joint cartilage. In fact, Triple Relief contains an important Ayurvedic herb that helps prevent the breakdown of connective tissues and increases circulation to the joints, which may actually help improve joint health.

Each 2 capsules of Triple Relief provide 250mg of Nexrutine™, 250mg of Boswellia (standardized to 20% boswellic acid), and 120mg of Willow Bark extract (standardized to 15% salicylic acid).

Nexrutine™, a natural extract derived from the phellodendron plant, has been reported to be beneficial in the management and potential treatment of various inflammatory diseases. Research indicates that this proprietary patent-pending extract inhibits COX-2 activity. Unlike NSAIDs, Nexrutine protects the stomach lining against ulceration. In fact, animal studies have shown that Nexrutine significantly inhibited formation of aspirin-induced ulcers. Unlike other COX-2 inhibitors, Nexrutine works by blocking the gene responsible for the production of COX-2 and other chemical mediators that cause inflammation, rather than acting directly upon the inflammatory enzymes. Furthermore, animal studies have shown Nexrutine to be as effective as the NSAID drug naproxen for reducing pain and inflammation.[4,8]

Boswellia has long been valued in traditional Ayurvedic (Indian) medicine for its anti-inflammatory action, especially in the treatment of arthritis and low back pain. Researchers have found that boswellia contains substances known as boswellic acids, which fight inflammation and are considered by Indian researchers to have similar activity to NSAIDs. Boswellia compounds have also been found to inhibit the breakdown of connective tissues and increase blood supply

to the joints, which may actually help improve cartilage structures. For example, whereas NSAIDs can actually accelerate articular (joint) cartilage damage in arthritic conditions by decreasing glycosaminoglycan (GAGs) synthesis—the production of important substances involved in cartilage repair—boswellic acids have been shown to reduce inflammation without altering GAGs levels. Furthermore, boswellic acids have been shown to inhibit the synthesis of leukotrienes, biochemicals that sustain inflammatory conditions once they are activated. Several studies have found boswellic acids to effectively inhibit leukotriene synthesis, which is believed to play a role in chronic inflammatory diseases such as arthritis, bronchial asthma, chronic colitis, inflammatory bowel disease (IBD), and ulcerative colitis.[7,9-19]

Willow bark contains the active ingredient salicin, which is metabolized in the body into salicylic acid (a chemical relative of acetylsalicylic acid, the active ingredient in aspirin). Salicin-containing plants such as willow bark act in a manner that is therapeutically similar to the actions of aspirin—salicylic acid inhibits the COX-2 enzyme. Willow bark is predominantly used as a natural anti-inflammatory for symptomatic relief of gouty arthritis and as an analgesic (pain-reliever) for mild neuralgic pains (nerve-related pain), toothaches and headaches. The German Commission E has approved willow bark for rheumatic ailments, headaches, and diseases accompanied by fever. In fact, a number of clinical studies have proven the efficacy of willow bark extract in painful inflammatory and degenerative rheumatic diseases, while randomized, double-blind studies have found standardized willow bark extract to be far more effective than placebo for treating chronic low back pain and osteoarthritis. In addition, a randomized, controlled clinical trial comparing the effects of willow bark extract to the prescription drug rofecoxib (a synthetic COX-2-inhibitor) found no significant difference in effectiveness between the two treatments, other than the treatment with willow bark was about 40% less expensive.[20-28]

It is important to note that willow bark does not interfere with coagulation—it does not prolong bleeding time, nor does it inhibit platelet aggregation. In addition, willow bark's active ingredients are metabolized by the liver, by-passing the gastrointestinal tract and thus, avoiding gastrointestinal irritation.[20,22]

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