

# INFLAMA-REST™

Natural COX-2 Inhibitor for Joint Comfort

Overproduction of certain biochemical regulators in the body can result in cellular and joint discomfort. By inhibiting and controlling these key compounds you can bring the body back into a healthy and comfortable balance. The nutrients and herbs in Inflama-Rest have been scientifically shown to help re-establish this balance, support joint and muscle function, protect cellular DNA, defend against destructive free radicals, and support the body's stress response.



**ACTION**

COX-2 Inhibition: Prostaglandin & Leukotriene Synthesis	Inhibition of Cytokine Production	Inhibition of Nitric Oxide Synthesis	Inhibition of NF kappa B Activation
The COX-2 enzyme is the rate-limiting step in the conversion of arachidonic acid to prostaglandins. Prostaglandins act as local cell regulators in response to tissue damage or chemical signals. But prostaglandins such as PGE2 can cause irritation and discomfort, particularly when out of balance. Certain herbs that <b>inhibit COX-2 and thus minimize prostaglandin production</b> , have been shown to support mobility. Leukotrienes, which are other molecules produced by cells that can get out of balance, can also be irritating to tissues. Inhibiting the 5-Lipoxygenase enzyme helps prevent leukotriene synthesis.	Cytokines (e.g. Interleukins or Tumor Necrosis Factor) are chemical regulators that may be overproduced by the body and cause discomfort. Interleukins are released by white blood cells in response to stimuli. This results in a <b>rapid escalation of the immune response, which, when unchecked, can cause increased discomfort</b> . Constant immune stimuli can keep these cells out of balance and result in long-term discomfort.	Nitric oxide (NO), a potent free radical, is involved in cellular irritation, similar to COX-2 enzyme products. Research has shown a correlation between overproduction of nitric oxide and increase in prostaglandin production and accompanying discomfort. <b>Inhibitors of nitric oxide synthesis have been reported to help minimize such imbalances</b> . Several botanicals are powerful inhibitors of nitric oxide production, including rosemary, resveratrol and Chinese skullcap.	Transcription factor NF kappa B turns on and off genes that regulate cellular response as well as cellular growth and regeneration. Stimuli such as free radicals, immune system molecules, or chemical response signals, result in NF kappa B activation, causing it to bind to specific regions of genes such as those that produce the COX-2 and iNOS enzymes, and thus increasing production. Silymarin, rosemary, and resveratrol have all demonstrated NF kappa B inhibitory activity. Additionally, certain herbs can directly protect DNA against strand breakage as well as inhibit production of specific problem-causing genes.

**CONTENT**

Boswellia, Chinese Skullcap, Ginger, Green Tea, Holy Basil, Hops, Resveratrol, Silymarin, Turmeric, White Willow	Feverfew, Stinging Nettle, Turmeric	Green Tea, Quercetin, Resveratrol, Rosemary, Turmeric, Chinese Skullcap	Chinese Skullcap, Resveratrol, Rosemary, Silymarin, Stinging Nettle
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## Stress Response: Joint and Muscle Support

Research has shown that emotional stress, particularly long-term, can set in motion mechanisms that cause physical discomfort. **Addressing stress by supporting the body's response system can help maintain balance**. For example, adaptogens and calming herbs help modulate the emotional response to stress. Magnesium helps relieve muscle cramping and aching. Zinc and copper help support joint function and ease movement.

## DNA Protection

DNA, the blueprint for all molecules in the body, can be altered or damaged, as well as turned on or off, thereby affecting what type of gene is expressed. This can impact joint comfort. Certain compounds, such as curcumin from turmeric and quercetin, **directly protect DNA against strand-breakage and base oxidation**, according to in vitro research.

## Antioxidant Defense

Oxidative stress is considered one of the main causes of age-related damage to cells and tissues, particularly the joints. Some regulatory chemicals, such as nitric oxide, released by cells in response to stress, are also powerful free radicals and oxidants. Oxidants also activate NF kappa B. Research suggests that **dietary antioxidants play a significant role in balancing and modulating the activity of these compounds** and help maintain structure and function of tissues, lipids, proteins, and DNA, which are extremely sensitive to oxidation. Antioxidants can help neutralize free radicals and protect joints from damage and degradation.

Quercetin, Resveratrol, Rosemary, Turmeric, Manganese, Zinc, Tocotrienols

Ginger, Resveratrol, Rosemary, Silymarin, Turmeric, Manganese, Selenium, Zinc, Tocotrienols

