Joint Maintenance

DESCRIPTION: this softgel contains recommended doses of those ingredients known to be efficacious in adult joints, encourages healing and preventing further deterioration and pain to joints.

FORMULATION: Each serving of 4 softgels contains

- Glucosamine, as both glucosamine sulfate and glucosamine HCl: 1500 mg
- Chondroitin sulfate (certified BSE free): 1200 mg
- Turmeric root, 6:1: 100 mg
- Bromelain (600 GDU/gm): 50 mg
- Eicosapentaenoic acid (EPA, from fish oil): 454 mg
- Docosahexaenoic acid (DHA, from fish oil): 305 mg
- Copper (Chlorophyllin, from mulberry leaves): 0.2 mg
- Vitamin C: 60 mg
- Vitamin E (d-α-tocopherol): 6 IU

INDICATIONS AND COMMON TREATMENTS: Deterioration of the major joints may affect up to 10% of the adult work force; treatment is difficult and often ineffectual -

1. The indications of painful swelling about stiff joints along with restricted motion and sounds of internal abrasion are so common that many cases are self-diagnosed.
2. First line treatment for most is exercise and hopefully weight loss. Many cannot institute a habitual program because degeneration has progressed beyond self-correction to the level of chronic pain.
3. Prolonged treatment with non-steroidal anti-inflammatory drugs (NSAID) is considered a risk to the gastrointestinal tract.
4. Prolonged treatment with COX-2 inhibitors may be a risk for cardiovascular complications.
5. Use of braces, canes and walkers is considered unsightly and avoided by many patients.
6. Surgical replacement is the treatment of last resort and though elective is not trivial and generally left until old age.

FEATURES: Each serving provides a full 1500 mg of glucosamine sulfate and 1200 mg of chondroitin sulfate, indicated as efficacious by many publications. In addition, liberal quantities of EPA and DHA are included, along with turmeric and bromelain to help relieve pain and inflammation.

DIRECTIONS: Three softgels daily, preferably before or with meals. Store in a dry cool place, keep out of reach of children.

BACKGROUND: A mixture of glucosamines with chondroitin sulfate has been used for many years on the European continent for treatment of mild osteoarthritis; the use of these nutrients has lagged in most English speaking countries. Meta-analysis of 15 reports, selected as the most reliable from a pool of 37, concluded that both glucosamine and chondroitin are safe and effective. Studies using radioactive tracers in chondroitin and glucosamines fed to animals has ascertained that a portion these ingredients travel directly after ingestion, to joint cartilage, as well as other organs (the liver, for instance). Though the basic subunits of cartilage and synovial fluids can be synthesized via the enzymatic pathways of central metabolism in most mammals, it seems these pathways may not be fully utilized by many adults. A recent update of management of joint health in thousands of free-living adults pointed to glucosamine and chondroitin as

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safe alternatives to prescription of steroids and non-steroidal anti-inflammatory drugs (NSAIDs) for mild knee and hip.

Another study, over three years of postmenopausal women suffering of the knee, has confirmed these positive findings.

Bromelain, as the active proteolytic enzyme isolated from pineapple stems, is also included in Joint Maintenance softgels. This ingredient has been used for many years, in oral form, as safe especially for post-surgical and trauma healing. It appears that bromelain functions on many different levels – first, by activating the key anti-coagulant enzyme plasminogen to the active clot-busting plasmin, second, by discouraging platelet aggregation and it may even inhibit the biosynthesis of inflammatory prostaglandins. This enzyme, in combination with other oral enzymes, has also been shown to reduce soreness after sports exercise.

The most biologically active ingredient of turmeric extract is curcumin. This small, simple compound has been shown to be an excellent inhibitor of inflammation, primarily by inhibition of the biosynthesis of the enzymes which are responsible for prostaglandin synthesis in a number of differing cell types. Reduction of chronic inflammation by oral curcumin, has been shown to aid terrifically to pain reduction and increase healing.

Two other nutritional supplements included in Joint Maintenance, which have been shown effective against chronic pain are eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). More than that, both of these are now considered dietary essentials, because mammals lack efficient pathways for biosynthesis of EPA and DHA from the required α-linolenic acid. These polyunsaturated lipids are excellent inhibitors of prostaglandin E2 biosynthesis and so act as anti-inflammatory on the level of the COX enzymes. Lower levels of prostaglandin E2 are associated with healthier bones and EPA, itself, is thought to discourage bone loss, especially in females after menopause. EPA also encourages wound and damaged connective tissue healing, even of skeletal ligament tissues.

One mechanism for this positive healing effect is via increased collagen production from the fibroblasts lining the wounded area. Vitamins E and C have long been know to be absolutely required for collagen production and so are also provided in Joint Maintenance.

References.


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