NutraDisc®

Nutra Disc® ITEM #: 3629-0090-01
3629-0180-01

Nutra Disc® is a unique proprietary product for disc injuries and related connective tissue problems.

Nutra Disc® contains a specialized blend of ingredients designed to support the body's natural response to maintain good joint health, promote the production of collagen, and support the rebuilding of cartilage.

DESCRIPTION

Comprehensive disc support formula containing Meriva® Bioavailable Curcumin, glucosamine and chondroitin, and powerful enzymes which help resolve the inflammatory process.

HOW SUPPLIED

90 or 180 orange capsules.

DIRECTIONS

Take two capsules three times per day on an empty stomach or as directed by your doctor.

Supplement Facts

Serving Size 2 Capsules — Servings Per Container 90

Amount Per Serving		% Daily Value
Chondroitin Sulfate	222 mg	**
Glucosamine Sulfate	250 mg	**
[from Glucosamine potassium sulfate (from shrimp)]		
Turmeric (rhizome) (Meriva® Bioavailable Curcumin)	300 mg	**
Z-PRO* Enzyme Blend	598 mg	**
Bromelain		
Protease 6.0		
Protease 4.5		
Serrazimes™		
Protease 3.0		
Chymotrypsin		
Papain		

*Z-PRO is a proprietary enzyme blend ** Daily Value not established.

Other Ingredients: Vegetable capsule, cellulose, silica.

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Prevalence of Disc Issues

Back issues are one of the most common complaints reported to physicians and a leading cause of disability. The percentage of chronic spinal pains caused by muscle nociception is not known. Of the remaining tissues, the intervertebral disc, manifesting as discogenic pain and radicular pain, is the most common generator of chronic low back pain. [1,2]

Treatments should be applied in the context of disc biology, pathology and natural history issues. The component of treatment that is commonly missed is nutritional chemistry, which addresses the inflammatory issues of the disc.

Understanding the pathological Process

The process of disc degradation begins with damage to the weakest link within the disc's anatomy, which is the vertebral endplate. In fact, the first unequivocal sign of disc damage occurs in the vertebral endplates.[1,3] Endplate damage disrupts the delicate homeostatic environment of the nucleus because such injury leads to the activation of matrix metalloproteinases (MMPs) and the degradation of the nucleus pulposus.[1,3] By degrading the nuclear proteoglycans, MMPs limit the ability of the nucleus to imbibe water and maintain its cohesive structure that normally resists and properly distributes compressive loads. Thus, the chemical degradation of the nucleus leads to altered spinal mechanics.

Injury to the endplate gradually leads to degradation of the entire nucleus and a radial fissure into the annulus and the subsequent time-delayed development of discogenic pain, which may proceed to frank herniation and radicular pain. The gradual chemical degradation of the nucleus and annulus can create the illusion that pain is largely "mechanical" and that disc herniation is due to an obvious traumatic mechanical event.

From an operational and practical perspective, it is important to remember that discogenic pain and disc herniation occur because of upregulated MMP activity and other inflammatory mediators.

Use of Supplements in treatment

Proteolytic enzymes

Enzymes have a long history of use in the treatment of acute injuries. Discogenic pain and disc herniation can be viewed as acute injuries, as each can come on suddenly and be associated with severe pain. Supplemental proteolytic enzymes have not specifically studied on the context of disc herniation; however, this should not dissuade practitioners from using enzymes as the connective tissues of the disc are no different than the connective tissues of the ankle. When enzymes are used immediately post-ankle sprain (Bucci), the outcome was a quicker return to work in the enzyme group (1.7 days) versus placebo (4.4 days). Subjects taking enzymes were able to resume exercise training earlier (9.4 days) compared to those taking placebo (15.9 days). Studies with enzymes routinely show anti-inflammatory benefits that translates into quicker recovery and return to work or training.[4]

Curcumin

Curcumin is one of the most researched natural products.[5] It is known to be a modulator of multiple inflammatory signaling mechanisms including NF-kB, COX, and LOX. The outcome of this activity is a reduction in pro-inflammatory cytokines, prostaglandin, and leukotrienes. More recently, the activity of curcumin was reviewed in the context of articular chondrocyte function. Multiple anti-inflammatory and protective mechanisms were cited,[6-8] such as:

- inhibition of NF-kB
- inhibition of MMPs
- inhibition of IL-1-induced glycosaminoglycan release
- inhibition of chondrocyte apoptosis
- inhibition of IL-1, IL-6, IL-8, and PGE2

Glucosamine chondroitin sulfate

From a broader health view, researchers looked at supplementation with glucosamine, chondroitin, and fish oil in the context of high sensitivity C-reactive protein levels, which is a marker of chronic inflammation. They found hs-CRP reductions of 17% with glucosamine, 22% with chondroitin, and 16% with fish oil compared with participants who did not take the supplements.[9] Long term glucosamine/chondroitin users also appear to have a greater chance for increased longevity.[10]

References

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