**ARThROBEN™**

Medical Food for the dietary management of osteoarthritis and musculoskeletal inflammation related to athletic or other physical activity

**INGREDIENTS**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount per serving</th>
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</thead>
<tbody>
<tr>
<td>Arthroben™</td>
<td>11 g</td>
</tr>
<tr>
<td>Flavocoxid</td>
<td>250 mg</td>
</tr>
<tr>
<td>Fortigel™</td>
<td>5 g</td>
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<tr>
<td>Verisol™</td>
<td>2.5 g</td>
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**ARThROBEN™** is available in a delicious tasting apple flavored powder

**RECOMMENDED USE**
Mix 11 grams (approx. 1 1/2 tablespoons) in 8 ounces of water per day, or as directed by a physician.

**REFERENCES:**
11. Bolland SM. NSAIDs were associated with increased risk for mortality, regardless of time since first MI. Ann Intern Med. 2013 Jan 15;158(2):JC10.
NSAIDs
Selective or unbalanced inhibition of an individual COX or LOX pathway is believed to result in most of the common side effects associated with chronic NSAID use.

NSAID Side effects:
- GI complaints, i.e., nausea, heartburn, dyspepsia, abdominal pain—May occur in up to 40% patients with chronic NSAID use
- Bleeding ulcer
- Kidney damage that may persist even after drug withdrawal in some cases
- Cardiovascular events [MI, stroke, etc.]
- Congestive heart failure—“NSAIDs were responsible for approximately 19% of hospital admissions with CHF”
- The burden of illness resulting from NSAID-related CHF may exceed that resulting from gastrointestinal tract damage.

ACETAMINOPHEN SIDE EFFECTS:
- The leading cause of acute liver failure
- Kidney toxicity

"Patients with high cardiovascular or gastrointestinal risk should avoid using NSAIDs.”

ARTHROBEN™ produces relatively balanced inhibition of COX-1, COX-2 and 5-LOX pathways
ARTHROBEN™ balances COX-1 & COX-2 metabolism by inhibiting both enzymes relatively equally, in addition to inhibiting 5-LOX, which helps to minimize systemic side effects while effectively managing the metabolic imbalances of OA.

The unique combination of actives in ARTHROBEN™ inhibit inflammation and oxidation, increase functional mobility, and stimulate connective tissue repair.

ARTHROBEN™
ARTHROBEN’s 4 pronged approach to the dietary management of osteoarthritis:
1. Reduces inflammation—balanced COX and LOX inhibition
2. Potent antioxidant protection to reduce joint degeneration
3. Reduces stiffness; increases joint mobility and function
4. Stimulates connective tissue repair

KEY ACTIVES IN ARTHROBEN™
Flavocoxid
Flavocoxid is a proprietary blend of the flavonoids baicalein and catechin that was shown as effective as naproxin in managing knee osteoarthritis, and produced improvements in 87% of patients.

Dual Action of Flavocoxid:
1. Balanced inhibition of COX-1, COX-2 and 5-LOX pathways. This balanced down-regulation, though weaker than traditional NSAIDs and selective COX-2 inhibitor drugs, is not associated with the side effects commonly seen with selective COX inhibitors.
2. By acting as a strong antioxidant to limit free radicals and oxidative damage to cartilage and other connective tissue of the joints.

Fortigel® & Verisol®
Fortigel® & Verisol® are standardized mixtures of collagen peptides derived from a patented process of hydrolysis of porcine or bovine type I collagen. These ingredients boost anabolic processes in connective tissues and provide building blocks for all collagen in the body.

Fortigel®
- 16 human clinical trials (approximately 2800) subjects demonstrating a positive effect on joint health
- Reduced need of analgesics
- Increased joint mobility
- Improved radiographic markers of cartilage health

Verisol®
Verisol® (like Fortigel®) stimulates anabolic processes in connective tissue
- Tested in two recent human clinical studies (pre-publication) for its effects on type I collagen in skin
- Improved skin elasticity and collagen type I content

arthrobens.com