UltimateBromelain

Code: FE0238 – 90 vegetable capsules

UltimateBromelain is a nutritional supplement based on digestive enzymes.

Ingredients: Natural bromelain (stem bromelain from *Ananas comosus*), anticaking agent: magnesium salts of fatty acids, vegetable capsule (glazing agent: hydroxypropylmethylcellulose; purified water).

Nutritional information	**1 capsule (712 mg)**
Natural bromelain (2 400 GDU/g)	500 mg (18 mill. FCC-PU)

Size and format:
90 vegetable capsules

Recommended daily dose:
1-3 capsules daily with plenty of water, with food.

Do not exceed the stated recommended daily dose.

Indications and uses:
Help with rheumatoid arthritis, osteoarthritis and other inflammatory processes, sports injuries, thrombophlebitis, infections of the respiratory tract, sinusitis, pneumonia and bronchitis. It also improves digestion. Weight control.

Cautions:
It is recommended to consult a health-care practitioner before use if you are pregnant or breast-feeding, or if you are treated with medications such as anticoagulants, anti-inflammatory drugs or antibiotics, have special medical conditions (hypertension), gastrointestinal lesions or ulcers or will be undergoing surgery.
This product may increase heart rate since it acts as an anticoagulant.
It may cause nausea, vomiting and diarrhea, and some people may be allergic to bromelain. In this case, stop taking this product and consult with a health care professional.

BROMELAIN: By breaking down molecules in food, bromelain promotes protein digestion, facilitating nutrient absorption in the blood and improving digestion. It also catalyses diverse chemical reactions in cells, organs and tissues upon deactivating molecular components during inflammatory processes. Bromelain is also of great help for cardiovascular and respiratory tract disease [1,2,5].

Bromelain is a protein-digesting enzyme with an enormous resistance to the processes of decomposition that occur in the gastrointestinal tract. If taken before meals it promotes digestion and reduces stomach discomfort and the feeling of fullness. Between meals it acts as an anti-inflammatory agent and therefore protects tissues [3,4].

It can also be useful when taken with a balanced program for weight control, along with a low-fat diet and physical activity [4].

Bromelain has anti-inflammatory effects since it blocks the synthesis of determined tissue hormones (type 2 prostaglandins), involved in the onset of inflammatory processes. It stimulates plasmin production, which not only blocks the formation of combinations that favour inflammation, but it also breaks down fibrin, therefore preventing swelling. It is therefore useful for rheumatoid arthritis, osteoarthritis and other inflammatory processes. It can also considerably reduce recovery time in sports injuries because of its action against swelling, in addition to moderating/palliating bruises, twists, sprains and contusions [1,3,4].

Many studies have shown that bromelain is very effective against inflammatory and immunological processes [4,5].

Its antibiotic properties make it of great help for respiratory tract infections and treating sinusitis, pneumonia and bronchitis. Its possible cancer-fighting effect is also worth mention, especially when used after chemotherapy, as it inhibits the proliferation of cancer cells [6].

Bromelain not only metabolizes protein, but it can also help heal damage to the walls of veins and arteries by inflammatory processes, as well as prevent plaque build-up. Its fibrinolytic properties have a very positive effect against thrombophlebitis, arteriosclerosis, lymphatic oedema and varicose veins [2,4,7].

The positive effects of bromelain are strengthened by simultaneous supplementation with pancreatin (its anti-inflammatory effect helps the body respond to swelling and inflammation, and eliminate deposits that can form in the joints, as well as shortening recovery time) (synergic effect) [1].

References:
1) Rathnavelu V, et al. Potential role of bromelain in clinical and therapeutic applications. *Biomedical Reports*. 2016; 5(3): 283-288.
2) Muhammad ZA and Ahmad T. Therapeutic uses of pineapple-extracted bromelain in surgical care - A review. *JPMA: Journal of the Pakistan Medical Associaton.* 2017; 67(1): 121-125.
3) de Lencastre Novaes LC, et al. Stability, purification, and applications of bromelain: A review. *Biotechnology Progress*. 2016; 32(1): 5-13.
4) Pavan R, et al. Properties and therapeutic application of bromelain: a review. Biotechnolgy Research International. 2012; 1-6.
5) Ley CM, et al. A review of the use of bromelain in cardiovascular diseases. *Journal of Chinese Integrative Medicine*. 2011; 9(7): 702-710.
6) Maurer HR. Bromelain: biochemistry, pharmacology and medical use. *Cellular and Molecular Life Sciences*. 2001; 58(9):1234–1245.
7) Taussig SJ and Batkin S. Bromelain, the enzyme complex of pineapple (*Ananas comosus*) and its clinical application. An update. *Journal of Ethnopharmacology.* 1988; 22(2): 191-203.