

stated recommended

daily dose.

AID-INFLAM is a formula made from high-quality ingredients which act in synergy to favourably affect inflammatory processes, edema, injury and pain.

This formula has proven effective for the treatment of arthritis, rheumatic diseases and sports injuries. In the case of cancer, it favours treatment with radiotherapy and positively alters tumour growth.

In acute trauma or sports injury, inflammation is a repair process associated with pain and swelling. Unfortunately, it can become chronic and increase tissue damage, as is the case with rheumatoid arthritis and osteoarthritis.

Inflammation is also involved in tumour growth, migraines, asthma, atherosclerosis, infections and autoimmune diseases. It is therefore necessary to control pro-inflammatory factors such as histamine, fibrin, tumour necrosis factor, alpha factor, eicosanoids, prostaglandins and leukotrienes in order to maximize repair and minimize damage.

**Ingredients:** Indian frankincense (*Boswellia serrata*) resin extract, turmeric (*Curcuma longa*) root extract, bromelain (from *Ananas comosus*), quercetin, anticaking agent: vegetable magnesium stearate and silicon dioxide, vegetable capsule (glacing agent: hydroxypropylmethylcellulose; purified water).

Nutritional information: Indian frankincense ( <i>Boswellia serrata</i> ) resin extract Boswellic acids 35%	<b>2 capsules</b> (1 500 mg) 400 mg 140 mg	Size and format: 30 and 90 vegetable capsules
Organic acids 70% Turmeric	280 mg 400 mg	Recommended daily
(95% curcuminoids*) Bromelain 2.400 GDU/g	200 mg 7 200 000 FCC PU	dose: 2 capsules once to three times daily. Do not exceed the
Quercetin *provides curcumin I, demetoxicurcumin and bisdemetoxicurcumin.	200 mg	

**Contains no:** Preservatives, artificial flavour or colour, sugar, milk or milk products, starch, wheat, soy, or yeast.

## Indications and uses:

Different studies have shown the ingredients in Aid-Inflam can relieve the following conditions:

Inflammatory processes of different types such as rheumatoid arthritis, tendinitis, joint damage, bursitis, sports injuries, muscle pain, hits and blows, twisting, sprains, burns, cuts, thrombophlebitis, bruises and scarring. It is also used for the treatment of cystic fibrosis, as well as in cases of food allergy. It controls the inflammatory processes that can end up as chronic diseases.

## **Cautions:**

Do not use if you are pregnant or breast-feeding, or if you are treated with medication, especially sedatives. Consult a health-care practitioner if you have a special medical condition (hypertension, gallstones, bile duct obstruction, or excess stomach acid, if you have gastrointestinal lesions/ulcers, or if you are taking anticoagulant agents, antiinflammatory agents, or antibiotics, or before having surgery; or if you are taking antiplatelet medication or blood thinners. If using for relief of joint inflammation, consult a health-care practitioner if symptoms persist or worsen. Discontinue use if symptoms of gastrointestinal diestress occur (nausea, vomiting or diarrhoea).

Do not use while on cancer chemotherapy. Stop taking AID-INFLAM 2 days before chemotherapy. Take AID-INFLAM only 30 days after your last chemotherapy treatment has ended.

<u>INDIAN FRANKINSENCE</u>: *Boswellia Serrata* is a plant that's been used as an anti-inflammatory and pain reducer since biblical times. Its active principle, boswellic acid, seems to regulate the enzyme lysyl oxidase (LOX), controlling chronic rheumatic inflammation. It also protects cartilage and connective tissue against glycosaminoglycan degradation.<sup>(1,2,3)</sup>.

<u>TURMERIC</u>: Its active principle, curcumin, makes this plant an excellent regulator of inflammation as it inhibits the release of inflammatory mediators (prostaglandins, thromboxanes, eicosanoids), having similar benefits as cortisone but without its toxicity. It appears to control inflammatory agents like COX2 and PGE2, important growth factors for cancer.

It is not used during chemotherapy, but is quite useful before and after, and is also considered helpful during treatment with radiotherapy. It's a powerful antioxidant with the ability to inhibit the production of free radicals, remove them from the



body and promote the production of endogenous antioxidants (glutathione). It also helps prevent and neutralize lipid peroxidation involved in the onset and development of degenerative disease in organs and tissues<sup>(4,9,10)</sup>.

Curcumin is also a hepatic protective plant that ensures sufficient production and secretion of bile, which impedes damage caused by an excess of oestrogen in sensitive tissues and protects the liver from harmful substances. It therefore helps promote the stabilization of hepatic cell membranes and inhibits lipid peroxidation in cases of liver inflammation. Blood and liver cleanliness are fundamental in the protection against advanced tumour growth<sup>(6,7,8)</sup>.

It's a mild choleretic so care must be taken in case of bile duct obstruction.

Its bioavailability increases when taken with bromelain<sup>(10,11)</sup>.

<u>BROMELAIN</u> comes from pineapple. It's a proteolytic enzyme that breaks down the kinins associated with pain and dissolves fibrin clots and favours their decomposition, thereby reducing inflammation and edema. In addition to its proteolytic activity, it has properties that regulate series 2 prostaglandins which are involved in the onset of inflammatory processes, and activate series 1 prostaglandins. It has proven to be of great help in cases of cerebral edema as well as brain tumour <sup>(12,13,14)</sup>. It's an essential ingredient in this formula because it favours the absorption of quercetin and turmeric. Many studies have shown that bromelain is very effective at helping the body's response to swelling and inflammation<sup>(14)</sup>.

<u>QUERCETIN</u> is a natural bioflavonoid derived from onions and apples. It blocks COX2, LOX5 and several steps of eicosanoid metabolism, therefore inhibiting the acute phases of inflammation. Quercetin is also a significant inhibitor of histamine production in the liver, making this substance a powerful suppressor of allergic reactions. It's an aromatase inhibitor that works by reducing oestrogen growth factor in breast cancer<sup>(15,16,17,18)</sup>.

Several studies show the protective role of quercetin upon its inhibition of cancer cells<sup>(18)</sup>.

## References:

- 1) Huang, M. T., Badmaev, V., Ding, Y., Liu, Y., Xie, J. G., & Ho, C. T. (2000). Anti-tumor and anti-carcinogenic activities of triterpenoid, beta-boswellic acid. *Biofactors,* 13(1-4), 225-230.
- 2) Singh GB, Atal CK. Pharmacology of an extract of salai guggal ex-Boswellia serrata, a new non- steroidal anti-in ammatory agent. Agents Actions 1986;18:407-412.
- 3) Siddiqui Mz. Boswellia Serrata, A Potential Antiinflammatory Agent: An Overview. Indian Journal of Pharmaceutical Sciences. 2011:255-261
- 4) Mesa Md, et al. Efectos farmacológicos y nutricionales de los extractos de Curcuma longa L. y de los cucuminoides. Ars Pharmaceutica. 2000; 41(3): 307-321.
- 5) Saiz de Cos, P. Cúrcuma I (Curcuma longa L.). Reduca (Biología). Serie Botánica. 2014;7 (2): 84-99.
- 6) Arbiser JL, Klauber N, Rohan R, et al. Curcumin is an in vivo inhibitor of angiogenesis. Mol Med. 1998;4(6):376-383.
- 7) Murray, Micheal T, N.D., "Curcumin: A Potent Anti Inflammatory Agent", American Journal Of Natural Medicine. 1994;1(4).
- 8) Sharma, O.P., "Antioxidant properties of curcumin and related compounds", Biochemistry and Pharmacology, 25:1,811-25, 1976.

9) Somasundaram S, Edmund NA, Moore DT, Small GW, Shi YY, Orlowski RZ. Dietary curcumin inhibits chemotherapy-induced apoptosis in models of human breast cancer. Cancer Res. 2002;62(13):3868-3875.

10) Anand, P., Sundaram, C., Jhurani, S., Kunnumakkara, A. B., & Aggarwal, B. B. (2008). Curcumin and cancer: an "old-age" disease with an "age-old" solution. *Cancer letters*, 267(1), 133-164.

11) Bright, J. J. (2007). Curcumin and autoimmune disease. In *The Molecular Targets and Therapeutic Uses of Curcumin in Health and Disease* (pp. 425-451). Springer US.

12) Taussig, S. J., & Batkin, S. (1988). Bromelain, the enzyme complex of pineapple (Ananas comosus) and its clinical application. An update. Journal of ethnopharmacology, 22(2), 191-203.

14) Maurer, H. R. (2001). Bromelain: biochemistry, pharmacology and medical use. Cellular and Molecular Life Sciences CMLS, 58(9), 1234-1245.

15) Hertog, M. G., & Hollman, P. C. (1996). Potential health effects of the dietary flavonol quercetin. European journal of clinical nutrition, 50(2), 63.

16) Valerio, D. A., Georgetti, S. R., Magro, D. A., Casagrande, R., Cunha, T. M., Vicentini, F. T., ... & Verri Jr, W. A. (2009). Quercetin reduces inflammatory pain: inhibition of oxidative stress and cytokine production. *Journal of natural products*, 72(11), 1975-1979.

<sup>13)</sup> Fitzhugh, D. J., Shan, S., Dewhirst, M. W., & Hale, L. P. (2008). Bromelain treatment decreases neutrophil migration to sites of inflammation. Clinical immunology, 128(1), 66-74.

<sup>17)</sup> Nijveldt, R. J., Van Nood, E. L. S., Van Hoorn, D. E., Boelens, P. G., Van Norren, K., & Van Leeuwen, P. A. (2001). Flavonoids: a review of probable mechanisms of action and potential applications. *The American journal of clinical nutrition*, 74(4), 418-425.

<sup>18)</sup> Dunnick, J. K., & Hailey, J. R. (1992). Toxicity and carcinogenicity studies of quercetin, a natural component of foods. *Fundamental and Applied Toxicology*, 19(3), 423-431.