

Consumer leaflet

Please read this leaflet carefully because it provides important information. RheumaPlus is a dietary supplement, sold in pharmacies and health food shops without prescription. According to Directive 2002/46/EC of the European Parliament and of the Council of 10 June 2002 the labeling of a dietary supplement must not attribute to it the property of preventing, treating or curing a human disease, or refer to such properties.

RheumaPlusTM

Dietary supplement

Provides nutrients beneficial for joint health

Composition:

	Amount [mg] for 1 capsule [†]	Amount [mg] for 3 capsules [‡]
Boswellia gum resin extract (<i>Boswellia serrata</i>)	100*	300*
Turmeric rhizome extract (<i>Curcuma longa</i>)	100*	300*
Astragalus root extract (<i>Astragalus membranaceus</i>)	80*	240*
Chamomile flower extract (<i>Matricaria chamomilla</i>)	80*	240*
Pineapple fruit extract (<i>Ananas comosus</i>)	50*	150*
Zinc (as gluconate)	7.5 (75% RDA)	22.5 (225%)
Piperine (Black pepper extract)	5*	15*

Accessory substances: silicon dioxide (E551) anti-caking agent, cellulose microcrystalline E 460 (carrier), magnesium stearate E 470b (carrier), gelatin E 441 (capsule shell), titanium dioxide E 171 (color).

[†]recommended minimum daily dose, [‡]recommended maximum daily dose, *RDA - recommended daily allowance - has not been established.

Recommended usage (administration): begin with one capsule three times a day before a meal with a glass of water. After 1 - 2 weeks reduce the daily dose to 1 - 2 capsules once a day before the evening meal with one glass of water. One should not exceed the recommended daily dose.

Properties and mode of action:

RheumaPlus provides phytochemicals* that are beneficial for joint health. The active constituents have been manufactured in a patented process that ensures their high bioavailability and optimal efficiency.

Boswellia gum resin extract (*Boswellia serrata*), is sourced from the Indian frankincense tree and provides six *boswellic acids* - active constituents. The acetyl-keto-boswellic acid (3-O-acetyl-11-keto- β -boswellic acid) so called AKBA - is the most active among six boswellic acids in the inhibition of 5-lipoxygenase enzyme. We have over 20% of AKBA in ImmuMax boswellia extract with improved membrane transport and increased bioavailability. Several studies have shown that AKBA inhibits 5-lipoxygenase[†] enzyme activity^[1,2] and in

* Phytochemicals, chemical compounds that occur naturally in plants. "Phyto" means "plant" in Greek. The term is generally used to refer to those chemicals that may have biological significance but are not established as essential nutrients. There are 10,000 different phytochemicals having the potential to affect various diseases. However, [??] certain phytochemicals are available as dietary supplements.

[†] 5-lipoxygenase is an enzyme that plays an essential role in the biosynthesis of leukotrienes - proinflammatory mediators, potent chemotactic and chemokinetic agents that cause vascular permeability and smooth muscle contraction.

consequence inhibits production of proinflammatory leukotrienes[‡]. The boswellic acids also have a beneficial influence on *signal kinases*^{§[3]} and *metalloproteinases*^{**[4]} and have a protective effect on cartilage. It has been shown that the administration of boswellic acids is beneficial for the health and function of joints.

Turmeric rhizome extract (*Curcuma longa*) provides *curcumin* (diferuloylmethane), a main active constituent that has multilateral biological activity. Clinical studies have shown that the administration of turmeric extract has a protective and also antioxidant effect on the liver and heart. Curcumin effectively inhibits enzymes 5-lipoxygenase and cyclooxygenase-2^{††[5]} and in consequence inhibits production of harmful prostaglandins and leukotrienes, which is beneficial for joint health^[6,7,8].

Astragalus root extract (*Radix Astragali*) provides i.a. *triterpenoid saponines*, so called *astragalosides*, that have adaptogenic and immunomodulating properties. They improve circulation and blood flow, support toxins elimination, and have an energizing effect. It has been proved in several experimental papers that consumption of *triterpenoid saponines* from Astragalus is very beneficial in several clinical situations i.a. for joint health^[9].

German chamomile flower extract (*Anthodium Chamomillae*) provides volatile oils *α-bisabolol* and its oxides, polyacetylene compounds (*spiroether*) and *matricin* converted into *chamazulene* that has strong spasmolytic, soothing and antioxiditive properties. Moreover, the extract provides *flavonoids* (*apigenin*, *quercetin*), *coumarines*, and *mucilages* that show powerful synergistic activity protecting from free radicals cascade (oxidative damage). The chamomile compounds support ACTH and cortisone secretion. The consumption of this chamomile preparation is beneficial in several clinical situations i.a. for joint health^[4,8].

Pineapple fruit extract (*Fructus Ananasi*) is most of all a source of the proteolytic enzyme bromelain, that helps to break down proteins and also may help to break down blood clots. It may intensify antibiotic effects. Several research projects have confirmed that bromelain consumption is beneficial in several clinical situations i.a. for joint health^[10,11,12], coronary vessels, sinuses and urinary tract health.

Zinc gluconate is source of easily absorbable zinc. Zinc is an essential microelement present in active sites of over 200 enzymes that play an important role in different processes including metabolism, regulatory protein synthesis, synthesis of DNA binding proteins, etc. This means that zinc has an impact on all vital processes of our organism (body). Zinc takes part i. a. in bone mineralization, healing and regeneration processes, immune system function, hormone production, blood pressure regulation and heart function, and increases spermatozoa production.

Piperine is the alkaloid extracted from black pepper (*Piper nigrum*) responsible for its pungency. Piperine increases digestive juices secretion (gastric, pancreatic, gut) and improves food digestion and absorption. It also improves drugs and vitamins absorption. The black pepper extract improves GI tolerance to highly concentrated protein and mineral-vitamin

[‡] Leukotrienes are lipid mediators, produced in the body from arachidonic acid by the enzyme 5-lipoxygenase. They take part in allergic and inflammatory processes, e.g. asthma, allergic rhinitis. Their production usually accompanies the production of histamine and inflammation.

[§] Kinases are used extensively to transmit signals and control complex processes in cells. More than five hundred different kinases have been identified in humans

^{**} Metalloproteinase is any protease enzyme whose catalytic mechanism involves a metal e.g. zinc or iron. Metalloproteinase is also associated with cartilage degenerative changes^[14].

^{††} Cyclooxygenase-2 - is inducible (by injury) enzyme that produces proinflammatory prostaglandins from arachidonic acid.

nutrients. It stimulates the immune system and facilitates protein digestion. Piperine improves hyperaemia of the GI tract and helps to absorb food nutrients from GI into the blood and lymph stream.

Available packages: 60 capsules 4 blisters containing 15 capsules.

Additional remarks: not recommended for pregnant or breast feeding women. The product should be stored out of the reach of young children and at room temperature. Dietary supplement cannot be used as a substitute for a varied diet. The expiry date is on the box close to the bar code.

Manufactured in EU for Phytomedica Co. Ltd., info@phytomedica.co.uk, www.phytomedica.co.uk

RheumaPlus™ is registered trade mark of Phytomedica Co. Ltd.

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