

Balanced Immune

Introduced 2018



What Is It?

Balanced Immune offers a blend of resveratrol, enhanced-absorption curcumin, black curcumin, broccoli, quercetin and vitamin D to support healthy self-tissue response, cytokine balance, detoxification, and cellular protection.[‡]

Features

- Part of the PureResponse™ Immune Protocol for healthy immune balance and function[‡]
- Promotes the health of tissues that are influenced by immunological factors, including joints, G.I. and thyroid[‡]
- Offers curcumin as enhanced-absorption sunflower phytosome (non-soy)
- 100 mg trans-resveratrol from a 50% *Polygonum cuspidatum* extract and 800 mcg sulforaphane per capsule
- Contains Sirtmax® black ginger suggested by in vitro studies to promote a 5-fold increase in SIRT1 activity compared to resveratrol[‡]

Immune Balance: Balanced Immune is designed to support immune balance and tissue integrity, in part by targeting the NLRP and NF- κ B pathways to modulate cytokine production. NLRP (NOD-like receptor proteins) act as intracellular sensors to oxidative and environmental stressors. Research suggests curcumin and vitamin D support healthy cellular response, in part by modulating this pathway. [‡]

Cellular function: Balanced Immune also promotes numerous enzyme and gene transcription pathways targeting nutrient metabolism in the liver, detoxification, and cellular protection against oxidative stress. Black ginger and resveratrol promote healthy SIRT1 protein levels. SIRT1 supports cellular homeostasis, plays an important role in insulin secretion and glucose homeostasis through numerous enzyme and gene transcription pathways, and affects glucose and lipid metabolism in the liver by modulating the activity of the nuclear receptor PPAR-gamma. In a double-blind, placebo-controlled, crossover study, 100 mg of SIRTMAX® black ginger extract for seven weeks supported healthy glucose metabolism and weight management.[†] Sulforaphane and resveratrol also support the activity of Nrf2. Nrf2 is a transcription factor that supports cellular

function by promoting robust, long-lasting expression of numerous genes by promoting cellular protection against oxidative stress and detoxification.[‡]

What is the Source?

Vitamin D₃ (cholecalciferol) is derived from lanolin, the oil in sheep's wool. Curcumin is included in this formula as clinically researched and patented Meriva® curcumin-phosphatidylcholine complex. The complex offers enhanced efficiency of absorption and resistance to degradation in the digestive tract. Pharmacokinetic data suggests a 20-fold increase in relative absorption compared to standard curcumin. Meriva® turmeric phytosome is derived from *Curcumin longa* root extract and sunflower phospholipids. Broccoli sprout concentrate is derived from *Brassica oleracea* italic whole plant sprouts. Trans-resveratrol is derived from Japanese knotweed (*Polygonum cuspidatum*) root extract. SirtMax® black ginger extract is derived from *Kaempferia parviflora* root. Quercetin is derived from Fava d'anta tree (*Dimorphandra mollis*) pods and cat's claw (*Uncaria tormentosa*) leaves. Hypoallergenic plant fiber is derived from pine cellulose.

Recommendations

Pure Encapsulations® recommends 1 capsule, 1-2 times daily, with or between meals, or as directed by a health professional.

Are There Any Potential Side Effects or Precautions?

If pregnant or lactating, consult your physician before taking this product. It is recommended to use resveratrol cautiously in patients with hormonal disorders and those using estrogen therapy, as resveratrol may act as either an estrogen agonist or estrogen antagonist. Turmeric can cause nausea or diarrhea in some individuals. It is not recommended for individuals with biliary obstruction. Consult your physician for more information.

(continued)

[‡]These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

[†]Provides weight management support as part of a healthy lifestyle with a reduced calorie diet and regular exercise.

Are There Any Potential Drug Interactions?

Some studies have reported that broccoli sprout extract can affect the way that the liver breaks down medications metabolized by the cytochrome P450 system, altering the effects of these medications and possibly the dose needed for treatment. Resveratrol, turmeric, and broccoli sprout extract may react with blood thinning medications. Quercetin may react with calcium channel blockers, estradiol, and immune suppressive drugs. Vitamin D may result in hypercalcemia in certain individuals taking digoxin or thiazide diuretics. Consult your physician for more information.

Balanced Immune

each vegetarian capsule contains    v 00

Vitamin D (as cholecalciferol) (D₃) 25 mcg (1,000 IU)
 Meriva® turmeric phytosome (*Curcuma longa* extract 200 mg (root) and sunflower phospholipid complex)
 (standardized to contain 18% curcuminoids)
 Broccoli (*Brassica oleracea italica*) sprout 150 mg concentrate (whole plant)
 (standardized to contain 600 mcg sulforaphane)
 Trans-resveratrol (from Japanese knotweed 100 mg (*Polygonum cuspidatum*) extract (root)
 Sirtmax® black ginger (*Kaempferia parviflora*) extract (root) ... 50 mg
 Quercetin 60 mg
 other ingredients: vegetarian capsule (cellulose, water), hypoallergenic plant fiber (cellulose)

1 capsule, 1-2 times daily, with or between meals, or as directed by a health professional.

Meriva® is a trademark of Indena S.p.A.

Phytosome More Bioavailable is a trademark of Indena S.p.A.

SirtMax® is a registered trademark of Tokiwa Phytochemical Co., Ltd.

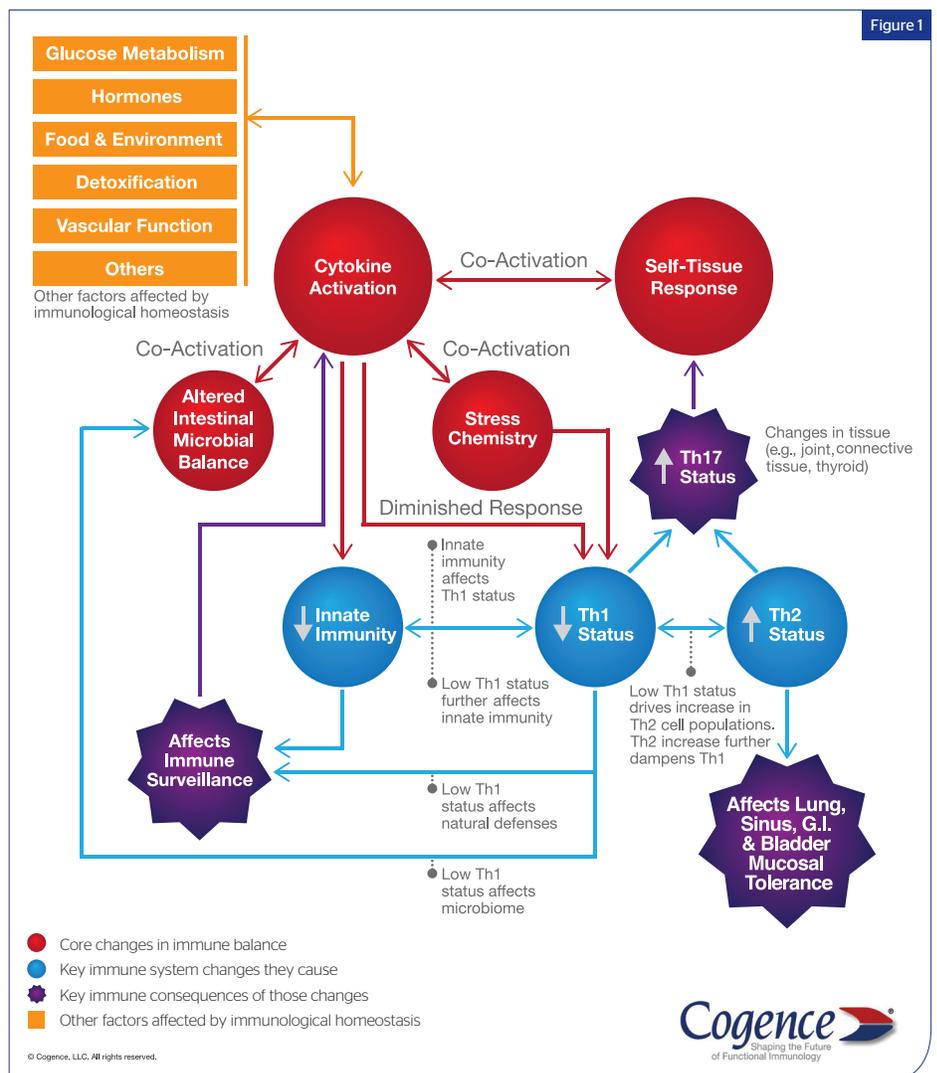
Identifying the Primary Drivers of Immune Balance

PureResponse™ addresses the interrelationships between elements of the immune system, the environment and other biological processes, as overviewed in the roadmap on the next page (Figure 1). Although these basic connections are the same for all patients, each patient's manifestation is unique, with a greater emphasis on some elements compared to others.†

Navigating the Roadmap

The health of organs, connective tissue and other structures in the body is maintained, in part, by a set of immunological feedback loops that connect cell signaling cytokines, stress mediators and T-cell populations with far-reaching effects.

- Cytokine activation and self-tissue response (large red circles) activate each other. Cytokines are chemical messengers that allow the immune system to communicate. Self-tissue response occurs when the immune system mistakes tissue in the body for an immunological threat causing an immune response.
- Metabolic, hormonal, physiological and environmental factors (orange boxes) can influence cytokines. Cytokine balance is important for not only directing the immune response but also for its resolution.
- Stress and intestinal bacteria (smaller red circles) also influence cytokine activity. Persistent or excess cytokine activation may diminish innate immunity and the number of Th1 cells. Reductions in these key immune defenses can influence microorganism populations throughout the body. This is often exemplified by altered intestinal microbial balance. In turn, alterations in microbial balance can drive further cytokine activation.
- Th1/Th2 cell populations (blue circles) are deeply involved in immune system balance, natural defenses and tissue health. Higher Th1 status supports cell-mediated immune defenses and helps maintain innate immunity. Lower Th2 status helps to keep Th1 status strong, while maintaining sinus and respiratory tolerance to environmental particles.
- ★ Th17 status (purple stars) is affected by Th1/Th2 balance and is involved in healthy self-tissue response.



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