# Quercetin Plus

# 500 mg with Vitamin C & Turmeric



## **DESCRIPTION**

Quercetin Plus is a unique formulation of quercetin, manganese and bromelain. Quercetin is a bioflavonoid that has excellent antioxidant activity. Manganese synergistically supports the quercetin activity. Bromelain is a proteolytic enzyme purified from pineapple, which is active and stable at the acidic levels found in the stomach.

#### **FUNCTIONS**

Quercetin is a naturally occurring bioflavonoid with strong antioxidant activity. The antioxidant activity of quercetin protects the gastrointestinal tract in several ways. First, quercetin prevents oxidation of lipids. The gastrointestinal tract has an increased exposure to oxidative stress due in part to the lowered pH. It is important to protect the lipid bilayer of the cell wall of the gastrointestinal tract because these cells serve as an important part of the body's immune system.

Secondly, quercetin prevents the depletion of glutathione from the cells of the intestinal tract. Glutathione is a cosubstrate for antioxidant enzymes glutathione peroxidase and glutathione reductase. By preserving the level of glutathione, quercetin protects metabolic activity and cellular structure of the highly vulnerable cells of gastrointestinal tract from toxic free radical damage. Vitamin C synergistically improves the ability of the quercetin to preserve glutathione.

Thirdly, quercetin increases mucus secretion from gastric cells. The mucus polysaccharide provides a protective buffer for the gastric cells from the low pH of the stomach contents. The reduced contact provides protection from gastric lesions. Quercetin provides an antispasmodic activity that prevents the uncontrolled peristaltic activity found in diarrhea. The reduced excretion of the intestinal contents provides benefit to the gastrointestinal tract by preventing the constant production of cellular protective materials.

Quercetin also reduces the immune response to allergens. Quercetin inhibits the IgE-mediated allergic mediator release from mast cells as well as IgG-mediated histamine release. Quercetin is a potent inhibitor of the lipoxygenase that metabolizes arachidonic acid, which is the first step towards proinflammatory arachidonic acid metabolites. Thus, quercetin

in the gastrointestinal tract helps protect against gastric lesions that permit highly antigenic proteins, antigenic compounds and/or infective agents from passing into the body. In addition it prevents the release of components of the allergic inflammation response.

Bromelain is a supportive nutrient in helping prevent allergens from crossing the gastrointestinal tract. Bromelain assists in the breakdown of large macromolecular protein complexes. This reduces the chance that these complexes will leave the stomach untouched or in large fractions retaining their recognizable antigenic form that could pass through these gastric lesions inducing an allergenic response.

Found particularly in mitochondria, manganese is a component of several enzymes, including glutamine synthetase, pyruvate carboxylase, and mitochondrial superoxide dismutase (SOD).

#### **INDICATIONS**

Quercetin Plus may be a useful dietary supplement for individuals who wish to supplement their diet with quercetin, bromelain and manganese.

#### SUGGESTED USE

As a dietary supplement, adults take one (1) tablet, two (2) times daily with meals, or as directed by a healthcare professional.

#### SIDE EFFECTS

No adverse effects have been reported.

#### **STORAGE**

Store in a cool, dry place, away from direct light. Keep out of reach of children.

Formula and References on following page

### FORMULA (WW #10128)

#### 1 Tablet Contains:

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Vitamin C (as ascorbic acid)
Manganese
(as amino acid chelate)
Quercetin
Bromelain
(Ananas comosus fruit extract)
(Standardized to 1800 GDU/g)
Turmeric 50 mg
(Curcuma longa rhizome extract)
(Standardized to 95% Curcumin)
Citrus Bioflavonoids
Other Ingredients: May contain one or more of the following:
magnesium stearate, cellulose, modified cellulose gum,
vegetable stearin, dicalcium phosphate, silica and food glaze.
Contains soy.

Vitamin C, bromelain, turmeric, citrus bioflavonoids and manganese work synergistically to enhance the proven benefits of Quercetin.

This product contains NO added sugar, salt, dairy, yeast, wheat, gluten, corn, preservatives, artificial colors or flavors.

#### **REFERENCES**

Al-Ghamdi SMG, Cameron EC, Sutton RAL. Magnesium deficiency: Pathophysiologic and clinical overview. Am J Kidney Dis 1994;24:737-752. Heinicke RM, et al. Effect of bromelain on clinical laboratory tests after oral administration. Jpn Heart J. 1971; 12(6):517-527.

James JM, Sixbey JP, Helm RM, Bannon GA, Burks AW. Wheat alphaamylase inhibitor: A second route of allergic sensitization. J Allergy Clin Immunol 1997; 99:239-234.

Lastra CA., Martin MJ, Motilva V. Antiucler and gastroprotective effects of quercetin: a gross and histologic study. Pharmacology 1994; 48:56-62.

Lozoya X, Meckes M., Abou-Zaid M, Tortoriello J, Nozzolillo C, Arnason JT. Quercetin glycosides in Psidium guajava L. leaves and determination of a spasmolytic principle. Arch Med Res Spring 1994; 25(1):11-15.

Martensson J, Jain A, Meister A. Glutathione is required for intestinal function. Proc Nat Aca Sci. 1990;87:1715-1719.

Masson M. [Bromelain in blunt injuries of the locomotor system. A study of observed applications in general practice]. Fortschr Med 1995; 113(19):303-306

Manufactured For:

**200 Pharmacy Inc** 9133 So. Stony Island Chicago, IL 60617 773-374-4550