

# MicroDefense

Introduced 2004



## What Is It?

MicroDefense is a powerful combination of phytonutrients to support immune, respiratory, genitourinary and gastrointestinal tract health by maintaining healthy microbial balance.\*

## Uses For MicroDefense

**Promotes Healthy Microbial Balance:** Artemisia, which contains artemisinin, has been used traditionally for thousands of years to promote healthy microbial balance within the body. Black walnut hull extract maintains healthy fungi levels and genitourinary function, and studies indicate that this extract provides broad-spectrum support for healthy microorganism balance. Olive leaf extract contains the active constituent oleuropein, a phenolic glucoside that helps maintain healthy G.I. and respiratory tract microorganism balance and may help boost immune function. Clove has been used traditionally to promote healthy fungal and microbial levels while grapefruit seed extract has been reported to help support healthy G.I. function and comfort, as well as promote healthy gram-positive and gram-negative balance.\*

## What Is The Source?

Black walnut hull extract (10:1) is derived from *Juglans nigra*. Olive leaf extract is derived from *Olea europaea* and standardized to contain min. 15% oleuropein. Artemisia extract is derived from *Artemisia annua* whole plant and standardized to typically contain 5% artemisinin. Clove is derived from *Syzygium aromaticum* whole plant. Grapefruit extract is derived from seed and fruit and standardized to contain 40% flavones and flavonones. Ascorbyl palmitate is derived from corn dextrose fermentation and palm oil. Hypoallergenic plant fiber is derived from pine cellulose.

## Recommendations

Pure Encapsulations recommends 1 capsule daily, just before a meal, with 6–8 oz water, for 2–3 months, or as directed by a health professional. Avoid taking with antioxidants or iron, as these substances may interfere with the product's effectiveness.


## Are There Any Potential Side Effects Or Precautions?

Not to be taken by pregnant or lactating women. In some individuals, artemisia can cause nausea, vomiting and muscle aches. In 5 reported case studies, artemisia and clove have been associated with seizure, kidney or liver dysfunction. Artemisia is not recommended for individuals with sensitivity to botanicals from the Asteraceae/Compositae family. Consult your physician for more information.

## Are There Any Potential Drug Interactions?

Black walnut hull may alter the absorption of medications; separate administration is recommended. Individuals taking this product with anti-hyperglycemic or anti-hypertensive medications may require blood glucose or blood pressure monitoring. Artemisia is contra-indicated with anticonvulsant medications. Clove may be contra-indicated with blood thinning medications. Grapefruit can affect the way that the liver breaks down certain medications (for example, statins, calcium channel blockers and mood stabilizers) metabolized by the cytochrome P450 system, altering the effects of these medications and possibly the dose needed for treatment. Consult your physician for more information.

## MicroDefense

each vegetarian capsule contains  v 00

black walnut ( <i>Juglans nigra</i> ) extract (hull) .....	75 mg
olive ( <i>Olea europaea</i> ) extract (leaf) .....	100 mg
(standardized to contain 15% oleuropein)	
sweet wormwood ( <i>Artemisia annua</i> ) extract (aerial parts) .....	200 mg
clove ( <i>Syzygium aromaticum</i> ) powder (bud) .....	75 mg
grapefruit ( <i>Citrus x paradisi</i> ) extract (seed and fruit) .....	85 mg
(standardized to contain 40% flavonoids)	
other ingredients: hypoallergenic plant fiber (cellulose), ascorbyl palmitate, vegetarian capsule (cellulose, water)	

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