

# Motility-Zyme™

## Nutritional Support for Gastrointestinal Motility



Motility-Zyme™  
available in a 90-count  
bottle (#1121).

- Promotes healthy gut motility and supports peristaltic actions
- Targets multiple pathways related to GI motility, including smooth muscle contraction frequency and function, gastric emptying, and bile secretion
- Controlled trials have shown improvement in symptoms of gastric discomfort and indigestion (nausea, fullness, and bloating) with ginger and artichoke extracts
- 5-HTP and magnesium support serotonergic activity throughout the GI tract, a key regulator of peristaltic action

**Motility-Zyme™** is a formulation specifically designed to encourage gastrointestinal motility by targeting multiple pathways associated with gastrointestinal function, including the stimulation of bile flow and gastric emptying as well as modulating the gut's serotonergic system and intestinal smooth muscle contraction. The botanicals artichoke and ginger combined with magnesium citrate and 5-HTP help to safely promote GI motility.

### Ginger & Artichoke

Ginger possesses bioactive compounds that accelerate transit and regulate dysmotility throughout the gastrointestinal tract by activating both 5-HT and muscarinic acetylcholine receptors.<sup>1</sup> Ginger's potent anti-emetic properties appear to be initiated by modulation of the 5-HT<sub>3</sub> receptors.<sup>2</sup> Ginger has been shown to stimulate both gastric emptying and antral contractions in healthy individuals and those with gastrointestinal discomfort and indigestion.<sup>3,4</sup>

Artichoke extract (*C. cardunculus var. Scolymus*, also known as globe artichoke) is rich in phenolic compounds and antioxidants that have been shown to help with symptoms associated with gastrointestinal issues (nausea, fullness, discomfort, and bloating), as well as to stimulate bile acid secretion, potentially reducing symptoms related to cholestasis.<sup>5,6</sup> Ginger and artichoke extracts used in combination have been shown to promote gastric emptying, and to help with symptoms of gastrointestinal discomfort and indigestion in controlled clinical trials.<sup>7,8</sup> Ginger and artichoke

extracts have also been used together with simethicone to reduce digestive discomfort and improve gastric mobility in endurance athletes (who often experience various gastrointestinal symptoms).<sup>9</sup>

### 5-HTP

The vast majority of serotonin (5-HT) is synthesized in the gastrointestinal tract, mostly by enterochromaffin cells, and this neurotransmitter has been implicated as a key modulator of intestinal smooth muscle contractile frequency.<sup>10,11</sup> 5-HTP is not only the precursor to serotonin, but perhaps of equal importance, it is also the precursor to 5-hydroxyindole (5-HI). 5-HTP supplementation has been shown to increase levels of 5-HI, a compound that potentially accelerates gastrointestinal motility. 5-HI is synthesized from 5-HTP by gut bacterial tryptophanase (TnaA) and directly activates L-type calcium channels of smooth muscle cells, thereby enhancing gut motility.<sup>12</sup> Experimental models indicate that 5-HTP supplementation also restores depleted serotonin levels in enteric neurons, which normalizes impairments in gut motility, and can stimulate contractions in both the duodenum and the jejunum as well as the large intestine.<sup>13,14</sup>

### Magnesium Citrate

Magnesium provides support for peristalsis throughout the GI tract, as the contraction and relaxation of smooth muscles depend upon sufficient magnesium.<sup>15,16</sup> Additionally, magnesium is an important cofactor for multiple neurotransmitters in the enteric nervous system, which largely regulates peristalsis.<sup>17-19</sup> Magnesium's support for the enteric nervous system may be why supplementation with magnesium has been shown to significantly reduce post-operative gastrointestinal symptoms, such as nausea, vomiting, and constipation.<sup>20</sup> Despite its importance to healthy peristaltic and nervous system function, low magnesium intake is common and may be exacerbated by medications used to treat gastrointestinal symptoms.<sup>21,22</sup>

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## Supplement Facts

**Serving Size: 1 Capsule**  
**Servings Per Container: 90**

	Amount Per Serving	% Daily Value
Magnesium (as magnesium citrate)	50 mg	38%
5-HTP ( <i>Griffonia simplicifolia</i> )(seed)(extract)	50 mg	*
Ginger ( <i>Zingiber officinale</i> )(rhizome)(extract)	150 mg	*
Artichoke ( <i>Cynara scolymus</i> )(erial)(extract)	150 mg	*

**\*Daily Value not established**

**Other ingredients:** Capsule shell (gelatin and water) and stearic acid (vegetable source).

**This product is gluten, dairy and GMO free.**

## Recommendation:

One (1) capsule three (3) times daily as a dietary supplement or as otherwise directed by a healthcare professional.

To place your order for **Motility-Zyme™**  
or for additional information please contact us below.

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