

MOTILITY ACTIVATOR PROKINETIC AGENT

Medical literature indicates that 30-45% of all individuals with gastrointestinal (GI) health goals may benefit from optimizing intestinal motility.¹

Normal gastric and intestinal motility is a prominent yet often overlooked aspect of gastrointestinal function. In fact, gastric and intestinal motility is a clinically relevant function that practitioners may address. During food consumption, the bolus of ingested food is propelled through the gastrointestinal tract through a variety of stretching reflexes and localized smooth muscle contractions. However, between feedings, secondary peristalsis continues from mouth to sigmoid colon through a neurophysiologic response and coordinated effort of the migrating motor complex. The purpose of this phenomenon has at least two uses. First, it supports the excretion of minimally or undigested material. Second, it prepares the stomach for the next meal. This “housekeeping wave” can be disrupted by certain pharmacologic interventions, episodes of acute, self-limiting illness, and responses to stress.^{2,3}

Ingestion of food interrupts the rather continuous propagating wave supporting intestinal motility. Gastric-intestinal migrating motor complex (MMC) is a cyclical response that involves four phases of which phase III is the most active. While the vagal innervation of the stomach is involved, the MMC carries the peristaltic contraction distally. Both alpha adrenergic and beta cholinergic receptors are implicated in proper function of motility.

Motility Activator is a patented combination of artichoke (*Cynara cardunculus*) and ginger (*Zingiber officinale*) extracts which has been the subject of human clinical trials.

Key Product Features:

- A unique, well-tolerated, clinically-studied, prokinetic agent*
- Supports gastric emptying in a dose-dependent manner.*⁴
- Contains a standardized extract of artichoke leaf, *Cynara cardunculus*.
- Supports gastrointestinal motility and transport.*⁵
- Supports gastrointestinal restoration.





MOTILITY ACTIVATOR

Description

Motility Activator consists of standardized extracts of *Cynara cardunculus* and *Zingiber officinale* and supports gastrointestinal motility and transport.*⁶ This patented combination has been the subject of two human randomized controlled trials.

Background

Ginger has been a staple of Chinese and Indian traditional formulas for centuries. The upper gastric soothing effects of ginger extracts have garnered the most attention in both clinical and public circles,¹ while its effect on gastric motility is often forgotten or ignored.*⁸ Since ancient Roman times, artichoke leaf has been a part of traditional European medicine.²

How It Works

Bowel regularity is often the dominant consideration for gastrointestinal motility. Individuals may exhibit normal bowel regularity and also require motility support. Gastric emptying and transit through the small intestine is also important for optimal gastrointestinal health. This migrating motor complex (MMC) may be disrupted by certain pharmacologic interventions, episodes of acute, self-limiting illness, and responses to stress.^{3,4} Motility Activator affects serotonergic and cholinergic neurotransmission, which stimulates healthy gut motility.*^{5,6}

The standardized extracts of *Cynara cardunculus* and *Zingiber officinale* were the subject of an initial double blind, randomized, placebo controlled trial with 126 adults from different centers over the course of four weeks to address gastric function.* One capsule was consumed before lunch and another capsule before dinner. Each capsule contained 100mg of artichoke (*Cynara cardunculus*) and 20mg of ginger (*Zingiber officinale*) standardized extracts. As a prospective study of healthy volunteers' experiences of early satiety, after meal fullness, bloating, and nausea were recorded. After only 14 days, there was a statistically significant ($p=0.017$) difference in subject self-rating in active versus control groups. The effects were sustained through the end of the study. Multiple correspondence analysis (MCA) quantifications were used to linearize the data between active and control groups. There was a 33.7% difference in global response between active and control.* The active group had an 86.2% response to the intervention versus 52.5% of the control group.*⁶ Motility Activator functions 16.9% better than artichoke leaf extract alone.*^{6,7}

In order to further understand how ginger and artichoke extracts acted on gastrointestinal function, a study evaluated gastric emptying via ultrasonography.*⁸ Eleven healthy volunteers underwent gastric sonography, were provided a single capsule of Motility Activator or placebo, and then provided a meal of known quantity. Sixty minutes after the meal, the ultrasound was repeated. As a crossover design, some subjects first received the placebo while others first received the active combination. After a one week washout period, the subjects received the other intervention and underwent the same procedure. Furthermore, after the crossover, the intervention was repeated with two capsules. Gastric measures were 24% less after one capsule and 38% after two capsules, suggesting a dose-dependent response.*⁷

INGREDIENT	BENEFIT
Ginger Root Extract	Supports gastric motility.* ⁵ Stimulates the migrating motor complex and has prokinetic potential.* ^{5,9} Basic science studies suggest that ginger root extract acts on cholinergic, spasmogenic functions of the gastrointestinal system.* ⁸
Artichoke Leaf Extract	Stimulates bile secretion.* ¹⁰ Soothing gastric support.* ⁵



Supplement Facts		
Serving Size 1 capsule		
Amount per capsule	%DV	
Total Carbohydrate	<1 g	<1%†
Proprietary Blend	248 mg	**
Pycrinil® Artichoke (<i>Cynara cardunculus</i>) Leaf Extract; Ginger (<i>Zingiber officinale</i>) Root Extract		
**Daily Value not established.		
Other Ingredients: hydroxypropyl methylcellulose (vegetable capsule), cellulose		
Recommendations: Take 1 capsule twice daily, or as recommended by your healthcare professional.		
Do not use if you are allergic to plants of the <i>asteraceae (compositae)</i> family including ragweed, have bile duct obstruction or gallstones. If pregnant, nursing, or taking prescription drugs, consult your healthcare professional prior to use.		
Contains No: sugar, salt, yeast, wheat, gluten, corn, soy, dairy products, artificial colors, flavors, preservatives, or ingredients of animal origin.		

References

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