

Hydrochloric acid blend for optimal digestion*

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WHAT IS BETAINE HCL?

Betaine HCI provides 750 mg of betaine hydrochloride (HCI) per capsule along with pepsin, a key protein digestive enzyme produced in the stomach. Hydrochloric acid is produced by the parietal cells of the stomach, and is required for the breakdown of proteins, the proper absorption of vitamin B12 and other minerals, and helps protect the body from potential pathogens and microbes.¹ This product is ideal for athletes who are looking to support their stomach's digestive function for better digestion prior to or during a workout.* Taking one capsule before a meal aids digestion, especially the digestion of protein-containing foods, and helps with the assimilation of nutrients.* Compromised or poor digestion from low stomach acid may be distracting and interfere with athletic performance.*

FORMULA HIGHLIGHTS

- Features 750 mg per serving of Betaine Hydrochloride (HCI) to support digestion of key nutrients*
- Provides 40 mg (500,000 FCC) per serving of pepsin to support healthy protein digestion*
- Delivered in a capsule form to ensure the delivery of betaine HCl and pepsin to the stomach where they are needed to initiate digestion*
- NSF Certified for Sport[®]

SUPPORTS DIGESTIVE HEALTH*

The stomach plays a central role in digestion by producing gastric acid – a specialized mixture that facilitates the breakdown of food. Gastric juice consists of five key components: water, mucus, intrinsic factor, hydrochloric acid, and pepsin.² Hydrochloric acid (commonly known as stomach acid) is essential for the breakdown of proteins and is required to maintain the stomach's optimal pH value. Pepsin, the other main compound in Betaine HCl, is the principal enzyme in the stomach that helps break down proteins into smaller amino acids for easier absorption and utilization by the body.²

Stomach acid has two vital roles in human health. The first is that stomach acid is required to digest food properly.³ The second is its role in protecting the body from pathogenic agents through food or water.³ Generally, a normal fasting gastric pH is less than 3.0 due to its acidic nature. When values are above 3.0, the stomach becomes too alkaline, and an individual is considered to have achlorhydria or absent HCl.⁴ In hypochlorhydria, when stomach acid is low, pepsin activity may be compromised. This may result in the absorption of inappropriately large peptides that may trigger a systemic immune response, which can be associated with food sensitivities.⁵ Low stomach acid can result from a variety of factors, such as *Helicobacter pylori* (*H. pylori*) infection, pharmaceutical drugs, the natural aging process, and diet.^{16,7} Betaine HCl can help promote optimal stomach acid status, thus supporting the digestion of important nutrients.*



The adverse consequences of low stomach acid may amount to various undesirable gastrointestinal complaints. For instance, this may be associated with occasional nausea, bloating, diarrhea, abdominal pain, postprandial fullness, vomiting, or constipation.³ Complaints such as occasional heartburn or acid regurgitation may also be associated with low stomach acid, even though these complaints may be mistakenly assumed to result from excess stomach acid.³

Digestion is an important body system that can often be disturbed in athletes, specifically endurance athletes. It is estimated that 30 to 50% of athletes experience digestive problems that may impair performance.⁸ A small sample explorative study of 44 collegiate Division I American football athletes found that 52% of the athletes reported experiencing gastrointestinal (GI) complaints during exercise, and 61% reported at least one or more GI complaints in general.⁹ An observational study of 1,281 runners inquired about the prevalence of GI complaints before and after a long-distance run (10 to 42 km). The study found that 45% of runners had at least one GI complaint, and 11% reported having serious GI complaints during the run.¹⁰

A randomized study looked at how food affects gastric pH and if supplemental betaine HCI could help reacidify the stomach.¹¹ The study evaluated nine healthy subjects who consumed a standardized meal with or without varying amounts of betaine HCI. The trial revealed that without betaine HCI, the gastric pH took almost 50 minutes to return to baseline. However, administering 4,500 mg of betaine HCI one time significantly reduced this time to around 17 minutes, suggesting its effectiveness at re-acidifying the stomach. $\ensuremath{^{11}}$

BENEFITS*

- Supports healthy stomach acid status^{6,11}
- Supports digestive function^{6,11}

HOW TO TAKE

Take one capsule per day before a meal.



*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

BHC120-DS



References

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