



## SCIENTIFIC VIEWPOINT

# ***When is HCL Supplementation Necessary?***

*If someone is having digestive issues, we do not assume it is a lack of HCL. As long as food is present, the body will make HCL. For most, HCL supplementation is not getting to the root of the digestive problem.*

Hydrochloric acid (HCL) is an important component of the gastric juice. It is needed to denature proteins in the stomach, activate pepsinogen, and enhance the absorption of vitamin B12 and various minerals. HCL supports digestion by converting pepsinogen to pepsin for protein digestion, but it is not a digestive “enzyme” itself. And in most cases, the stomach produces enough acid to perform these functions.

Pepsin is a proteolytic enzyme secreted by the stomach to digest the proteins. The Transformation™ Protease blend is likewise effective at this and actually cleaves at more peptide bonds, thus there is no need to carry pepsin in our products. Also, pepsin in digestive supplement products is typically derived from various animal sources such as porcine or bovine. For various reasons including the questions related to the conditions of the animals used to derive commercial pepsin, Transformation™ has elected not to carry that enzyme. Again, that decision is based on the advanced effectiveness of the Transformation™ Protease blend as well as the various health questions often raised by animal-derived products.

- **Did You Know?** Many think that hypochlorhydria is indicative of HCL supplementation, when in fact the only time HCL is really required is in the case of A-chlorhydria. True A-chlorhydria is actually very rare.

Diet plays a significant role in low output and stagnation in HCL production. When digestion is compromised, we assist with the actual digestion of the food with enzymes. For these purposes, Transformation™ uses alkaline, neutral, and acid enzymes that perform in a wide pH range. So, in the early stages of digestion before HCL has been secreted, or when there is none, the alkaline and neutral enzymes—including those for protein digestion—are working to break down the food. This is what supports a rebalancing of proper amounts of HCL from the stomach, i.e., more HCL when there is not enough and less when there is too much.

In 25+ years of specializing in digestive enzymes and digestive health, Transformation™ has not found a need or demand great enough to add HCL to our product line. For those who do have a true need for HCL, the supplements are available and Transformation's products work well with them. But the determination of acid deficiency should be carried out meticulously, and only then should the acid be given.



**Questions or comments?**  
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