

Useless Supplements Now Available For Celiac Disease



By Julianna LeMieux — August 9, 2017



Celiac disease (CD), an autoimmune disorder that is marked by damage to the lining of the small intestine, can only be treated by following a gluten free (GF) diet. Removing gluten works because gluten is the protein that the body reacts to in order to start the inflammatory response that damages the small intestine.

But, that is harder than it sounds.

Because maintaining a GF diet is challenging, people who have celiac disease long for therapies that may be able to help them keep gluten out of their systems. These would work, in theory, by degrading any gluten that happened to enter into their diet, either knowingly or accidentally.

Unfortunately, none of these therapies exist today. Despite that, certain companies are trying to profit off of this idea by marketing supplements that look and sound like they will degrade gluten - but haven't been proven to do so.

A group from the Celiac Disease Center at Columbia University Medical Center published a recent [paper](#) ^[1] that looked at these types of products being sold. They found fourteen companies that sell these supplements. Although the supplements' names imply that they degrade gluten - that is easier said than done.

Gluten's structure is very complex, due to its high proline content. Therefore, it is not able to be broken down by proteases (enzymes that break down proteins) like other proteins. Also, the fragments of gluten that react with the small intestine and activate the immune system are semi-degraded chunks. So, in order to mitigate the immune reaction, gluten has to be broken down into incredibly small fragments (shorter than nine amino acids) or almost completely.

In the absence of a known enzyme that can degrade gluten, the researchers took a closer look as to what is being offered online. They found 14 products and dug through their websites, product labels, and other information to find out what they are and assess whether they could work.

All fourteen are commercially available, enzyme supplements that are available in the United States and claim to degrade gluten. The 14 are listed below.

Table 1. Glutenase product names and manufacturers.

Product name	Manufacturer
BioCore DPP IV	Swanson Health Products (Fargo, ND)
Digest Gluten Plus	Seroyal (Pittsburgh, PA)
Gluten-Ade	Fain's Herbacy (Eurkea Springs, AK)
Gluten Cutter	Healthy Digestives (West Palm Beach, FL)
Gluten Defense	Enzymatic Therapy (Green Bay, WI)
Gluten Digest	NOW Foods (Bloomingdale, IL)
Gluten Enzyme DG	Vitacost (Boca Raton, FL)
Gluten-Zyme	Country Life (Hauppauge, NY)
Glutenaïd	CVS (Woonsocket, RI)
GlutenEase	Enzymedica (Venice, FL)
ProCellax DG2	Genufood Energy Enzymes Corp. (Los Angeles, CA)
SerenAid	Klaire Laboratories (Reno, NV)
Similase GFCF	Integrative Therapeutics (Green Bay, WI)
ZGlutn	Systemic Formulas (Ogden, UT)

All 14 products contained proteases. The ones that specified a type of protease listed one that is not proven to work. Others did not list a specific protease.

Many contained carbohydrases (11) or lipases (5) - neither of which degrade gluten.

One of the products even declared wheat as an allergen.

All are dietary supplements and are therefore exempt from FDA approval or labeling.

So, the research team found that there is little evidence that these products, despite what their name implies, work to degrade gluten. In addition, one of them contained wheat. So, celiac disease patients are not advised to use them. For now, they need to stick to a GF diet and hope that products similar to these, but that have been proven to work and FDA approved, will be available.

Until then, if it sounds too good to be true....

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[1] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5424869/>