E is for Enzymes

By Kelly Dorfman, M.S., Co-founder D.D.R.
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Children diagnosed with developmental delays have a high rate of digestive pathology. Studies suggest between 58 and 93% of children with gastrointestinal (GI) symptoms have chronic gut inflammation, reflux or low digestive enzyme activity. Slightly less than half of those without noticeable symptoms have low digestive enzyme activity. Adults can also suffer from weak digestion without knowing it. People adapt to GI symptoms and may consider gas or tiredness after eating "normal".

While special diets, supplemental nutrients, good bacteria replacement and yeast treatment are all needed to heal the gut, adding enzymes may be necessary for the complete restoration of digestive function.

What are Enzymes?

Enzymes are special proteins that catalyze essential biochemical reactions. There are two main types of enzymes, metabolic and digestive. Metabolic enzymes facilitate activity in the immune, endocrine and other systems. Our focus is on digestive enzymes that break down food.

Where do Enzymes Come From?

Fresh, raw food naturally contains enzymes that aid in digestion. The gut lining in healthy digestive tracts also produces enzymes. Efficient digestion requires enzymes form both sources. The guts of picky eaters, damaged by the overuse of antibiotics and immunizations, may produce too few digestive enzymes. Supplemental digestive enzymes are necessary when the diet and gut together supply insufficient amounts. Can you benefit from supplemental digestive enzymes? Knowing the A, B Cs of enzymes may help you decide.

A is for Appetite (and weight gain)

When enzymes are low, partially digested food sits in the GI tract. The result is discomfort or poor absorption of calories/nutrients. For youngsters with poor appetites, the body message is, "eating feels bad" or "I'm already full". If a child's appetite is good but he is not gaining weight, the food delivery trucks are not getting through. Either way, added enzymes can ease GI discomfort or simply increase uptake of nutrients.

B is for Breaking the Malabsorption Cycle

The gut lining requires vitamin A, zinc, protein, B vitamins and other nutrients to regenerate. A healthy, well nourished lining produces more enzymes. When too few enzymes are made, the resulting poor uptake of nutrients leads to an unhealthy gut lining and further deficiency. Many youngsters with developmental delays are picky eaters already so poor absorption can be devastating for brain development. Enzymes help break down food so that vitamins and minerals can be released and utilized.

In adults, malabsorption slowly drains energy leading to chronic fatigue, fuzzy thinking and/or depression. Because the drain of nutrients happens slowly over time, people may not be aware of how exhausted they have become.

C is for Cheating

When small cheats on a restrictive diet cause significant symptoms, this may signal the need for digestive enzymes. A restrictive diet allows the dysfunctional gut to rest and repair itself by removing irritants, thus preventing further damage. Unfortunately, you cannot remove all food so that the gut can truly rest and repair. Even if a food reaction initially caused the GI injury, by the time the food is taken away, the gut may need extra help to get better. In most people there are additional factors such as antibiotic use and immunization reactions that make the clean up more difficult.

Supplemental enzymes can reduce food reactions by breaking the allergens in food into smaller pieces. Some people can "cheat" on the gluten free, casein free diet by using enzymes when gluten or casein is eaten. Others choose not to cheat, but add enzymes to improve digestion so they can bend the diet in the future.

D is for Dysbiosis

Dysbiosis is a term used to describe an imbalance of gut microbes. The symptoms of dysbiosis are gas, bloating, diarrhea and/or constipation. Gas forms when bacteria or yeast in the GI tract ferment food particles. Too much fermentation impairs digestion. While good bacteria (probiotics) can help, if the food remains in big pieces and sits, the population of yeast and bad bacteria will increase to deal with it. This results in more gas and increased dysbiosis. Enzymes serve to break this cycle by completing digestion so food can move into the blood stream and not remain as fodder for gut bugs.

How do I Choose the Right Enzymes?

There are many brands and types of enzymes on the market. Even with laboratory testing, it is difficult to know which will work best until you try. Enzymes are specific for the substance they break down. For example, lipase is an enzyme that only works on fats (lipids). Dipeptyl dipeptidase IV cleaves proteins that have proline in the second position (such as gluten and casein). If a DPP IV enzyme does not help, a different mixed enzyme may.

When the gut is inflamed, as in autistic enterocolitis or inflammatory bowel disease, enzymes can cause more irritation even if a person needs them. Watch for crankiness or worse GI symptoms. When in doubt, take them out and consult with a good health care professional.

Enzymes are a safe and critical part of digestion. Diet elimination is often not enough to heal underlying problems. Consider enzymes as the next step in the digestive healing process.