RVGarden Product Facts: Quadra-Zyme Plus

Improves Digestion

What are Enzymes? Enzymes are complex molecules, vital catalysts that are needed for every chemical reaction in the body. There are two major types of enzymes – digestive and metabolic. Digestive enzymes work to break down large food molecules into smaller, readily absorbable building blocks the body requires. Metabolic enzymes help build body structure.

Naturally grown foods contain the enzymes necessary to aid in the digestion process so that the body doesn't have to use its enzyme reserves to do all the work. But when we process, refine, heat, or microwave our food, most if not all enzymes are rendered useless. At a temperature above 118 degrees Fahrenheit, all enzyme activity is destroyed. When we consume cooked or highly processed foods, our digestive system has to produce the enzymes necessary to digest what was eaten.

The purpose of our digestive tract is to extract and absorb the essential nutrients contained in our food. Consuming cooked foods can cause our body to take enzymes from the liver, pancreas, and other organs to use in the digestion process. Over time, this can cause these organs to be stressed, which can weaken our immune system and slow down our metabolism.

Health Benefits

Digestive enzymes assist in the breakdown of proteins, fats, carbohydrates, and sugars. The body can't utilize the nutrients even in healthy foods unless digestive enzymes are present to aid in the delivery of the nutrients to the bloodstream, cells, and organs. And, these nutrients are what keep the immune system and the rest of the body strong and healthy.

If the body is forced to supply the digestive enzymes needed for digestion, then it has fewer enzymes for other essential body functions. Including supplemental plant enzymes at the time food is consumed provides two important benefits. First, the plant enzymes can go to work immediately to start the digestive process. Second, the body doesn't have to take enzymes from other organs. This means that more

metabolic enzymes will be available to help organs and tissues function properly.

Including enzyme supplements in a daily diet may yield these important benefits:

- Restore the body's natural enzyme supply.
- Boost energy level.
- Strengthen the immune system.
- Improve overall well-being.

Research Summary

Many researchers support the idea that premature aging and many of the degenerative diseases people suffer from today are a result of a lack of enzymes in critical organs and tissues. Further, the level of enzymes in young adults is much greater than older adults. This may be due to a steady diet of enzyme-free foods depleting the body's enzyme supply over time.

Quadra-Zyme Plus

Quadra-Zyme Plus is a plant enzyme supplement for digesting proteins, starches, fats, fibers, sugars, and dairy foods. When taken with meals, it helps pre-digest food in the upper stomach for optimal digestion and absorption of nutrients from food.

Each vegetarian capsule contains amylase, protease, cellulase, lipase, maltase, invertase (sucrase), lactase, and cellulose.

Quadra-Zyme Plus can help you restore your body's natural enzyme levels and help you maximize your energy level, feel better and give you a much better chance of staying healthy and disease-free. *Quadra-Zyme Plus* works in a wide range of pH environments.

Supplement Facts	Serving Size 1 Capsule		
	Amount per Serving		% DV*
Amylase	90 mg	9,000 skbu	*
Protease	90 mg	45,000 hut	*
Cellulase	45 mg	1,000 cu	*
Lactase	20 mg	2,000 lu	*
Invertase (Sucrase)	18 mg	3,240 su	*
Maltase	10 mg	12 DP su	*
Lipase	4 mg	1,500 lu	*
Other Ingredients: Cellulose, Rice Flour.			
* Daily Value not established.		Capsule Size #1	

Below is a list of the enzymes and their function:

Amylase – Breaks down sugars and starches.

Cellulase – Hydrolyzes cellulose.

Invertase – Breaks down cane and beet sugars.

Lactase – Breaks down the lactose in dairy products into more soluable sugars.

Lipase – Breaks down fats and oils.

Maltase – Breaks down maltose, malt, and grain sugars.

Protease – Hydrolyzes protein to peptide and amino acids.

Suggested dosage: Take two to four capsules with meals, depending on the size of the meal. Can be taken between meals to help build up enzyme reserves.

Caution: Do not take if ulcer or gastritis are present (try *Gamma-Zyme* as an alternative).

Scientific Studies

In a 2004 research project conducted by The Netherlands Organisation for Applied Scientific Research, the effect of supplemental digestive enzymes was studied. The purpose of the study was to measure how well digestive enzymes digest proteins and carbohydrates and how available nutrients are to the body. This study concluded that enzyme supplements can significantly increase the degree of digestion in the lumen of the small intestine and improve availability of proteins and carbohydrates to the cells.

In a 2001 study, 260 people used enzyme supplements over seven months. The majority of the people taking enzymes reported noticeable improvement. Specifically, 235 (90%) experienced positive results, 14 (6%) reported negative results, and 11 (4%) were uncertain if any change occurred. Subjects reported significant improvements in digestion, stools/bowels, energy level, sleep patterns, weight gain or loss, foods tolerated, overall appearance, and mental skills.

Research conducted by Dr. Edward Howell, over a 50-year timeframe, showed that many of the physical problems and diseases we experience can be linked to improper digestion of food. In his research, he discovered that the saliva of young adults contain 32 times more enzymes than adults over 69 years. Dr. Howell concluded that the gradual depletion of the body's enzyme supply over time was caused by a steady diet of cooked foods. As the enzyme supply diminishes, the body becomes more susceptible to degenerative diseases and premature aging. Further research on rats revealed that rats receiving enzyme supplements had a higher level of enzymes in their body and tended to live longer than rats on enzyme-free diets.

Two other research studies (*Journal of Nutrition* 12:59-83, 1936 and *Proceedings of the Society for Experimental Biology and Medicine* 37:613-615) found that younger adults tended to have much higher enzyme levels in the urine, pancreas, and cells when compared to older adults.

Research (*American Journal of Physiology* 141:38-41, 1944) done on both domestic and wild animals revealed that feeding these animals a diet of heat-processed, enzyme-free food caused their pancreas gland to enlarge up to three times the normal size to handle the extra burden of the enzyme-deficient food.

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