

# Total-Zymes®

With L.E.A.D.S.®  
Live Enzyme Activated Delivery System®  
The most complete digestive enzyme for your pet!



**NWC Naturals®**  
PET PRODUCTS

For more information go to  
Total-zymes.com  
Or call 888-207-3480

## Total-Zymes® is new and improved!

Our high performance broad-spectrum digestive enzyme formula **NOW** utilizing **16 high performance vegetarian enzymes, prebiotics** coupled with our exclusive L.E.A.D.S.® Live Enzyme Activated Delivery System®. Our L.E.A.D.S.® system will insure complete enzyme activation for better digestion and assimilation of all your pets' food at a cellular level, and no other pet enzymes product has it.

## Do pets suffer the Symptoms of Poor Digestion?

• Sensitive Stomach	• Slow healing
• Allergies	• Bloating
• Poor health	• Excessive shedding
• Breath or body odor	• Eating own stool
• Stiff joints	• Poorly working intestine
• Being lethargic	• Poor coat or skin condition
• Excess Gas	• loose stool

## The Answer?



Digestive enzymes are essential to good health because they enable the body to obtain nutrients from food. Without digestive enzymes, even the most nutritious foods will not be of any use to the body. A typical animal's diet is full of cooked and processed foods. These foods are unnatural to pets and it strains the digestive system as well as the pancreatic system. This makes ample amounts of digestive enzymes even more important. This product assists pet's digestion by breaking down the fundamental components of their food with vegetarian enzymes. Even if our pet's diet consists of kibble, raw or canned food for their nutrient base, complete digestion is essential. No matter the quality of their base diet, if the pet's digestive abilities are compromised, the

nutrition will not be available. Total-Zymes® assures nutrient availability and absorption. Total-Zymes® Pet Digestive Powder is a high performance, broad-spectrum digestive enzyme formula utilizing 16 vegetarian enzymes and is coupled with our exclusive L.E.A.D.S® system, Live Enzyme Activated Delivery System®. The L.E.A.D.S. ® system, first used in human nutrition, optimizes the enzymatic effectiveness in your pet's digestive tract using chelated minerals that activate the enzymes. Full enzymatic activity assures complete digestion and assimilation of all your pets' food at a cellular level.

Brief Description of Enzymes	What they digest
<b>Protease 3.0, Protease 4.5, Protease 6.0</b>	Protein digestion in all pH ranges
<b>Peptidase</b>	Digests peptides to amino acids
<b>Amylase, Alpha-Galactosidase</b>	Carbohydrates
<b>Glucoamylase, Invertase, Diastase</b>	Glucose/sugars
<b>Lipase</b>	Fats and oils
<b>Cellulase, Pectinase</b>	Fiber
<b>Lactase</b>	Lactose and milk sugars
<b>Phytase, Hemicellulase</b>	Releases plant minerals from veggies
<b>Bromelain</b>	Systemic enzyme for inflammation and allergies

## Active Ingredient Over view

**Total-Zymes® is formulated by the author of the book “The Wonder of Probiotics”**

**1,2,3 Protease-** proteases refers to a group of enzymes whose function it is to break down proteins and are also referred to as proteolytic enzymes or proteinases. The proteins are broken down to its basic building blocks - amino acids. In order to have the amino acids available to the body, these enzymes have to break down the proteins to free them, and this important compound is being used in therapies such as oncology, inflammation conditions and immune control. Total-Zymes® includes 3 different proteases to insure wide pH activity.

**4, Peptidase-** without this crucial enzyme, (which most pet enzymes formulas leave out) the protein eaten and digested into peptides by the proteases will never break down into amino acids. Amino acids are the result of complete digestion and are essential to life. They are the building blocks of the body.

**5, Amylase-** amylase refers to a group of enzymes that breaks down sugars and starches. They are required to digest carbohydrates (polysaccharides) into smaller units (disaccharides), and eventually converting them into even smaller units (monosaccharides) such as glucose.

**6, Alpha-Galactosidase-** this enzyme breaks down carbohydrates, such as raffinose, stachyose, and verbascose. It can help prevent the gas and other gastrointestinal symptoms that occur after eating a high-fiber diet of beans and grains.

**7, Diastase-** is an enzyme that is the catalyst in the hydrolysis of disaccharide maltose to the simple sugar form – glucose. When starch is eaten, it is partially digested and transformed to maltose by both the saliva enzymes and pancreatic enzymes called amylases. The maltase is secreted in the intestines, and then convert this maltose into a more ready useable sugar glucose, or the glucose could also be stored in the liver for future use.

**8, Lipase-** is the enzyme required to break down of fats and lipids. In order for fat to be digested properly, the liver starts this process emulsifying the large fat molecules, and bile breaks it down to small droplets, allowing the lipase to start its work.

**9, Glucoamylase-** is used to breakdown carbohydrates, specifically polysaccharides.

## The Wonder of Probiotics



A 30-Day Plan to  
 Boost Energy,  
 Enhance Weight Loss,  
 Heal GI Problems,  
 Prevent Disease,  
 and Slow Aging

John R. Taylor, N.D., and Deborah Mitchell

**10, Invertase**-this enzyme breaks down carbohydrates, especially sucrose.

**11, Pectinase**- breaks down carbohydrates, specifically pectin in fruits, such as apples.

**12, Phytase**- breaks down carbohydrates, specifically phytates in plants. It can increase mineral absorption and the bioavailability of iron, zinc, calcium, and magnesium.

**13, Hemicellulase**- is used to breakdown carbohydrates, especially polysaccharides such as hemi-celluloses, which are found in plant foods.

**14, Cellulase**- breaks down cellulose, an indigestible fiber found in many fruits and vegetables.

**15, Lactase**- digests dairy, particularly the lactose in cheese, yogurt, cottage cheese and milk.

**16, Bromelain**- This enzyme harvested from pineapple stems is the top systemic enzyme for allergies, inflammation and joint stiffness.

**17, Pre-Biotics**- Inulin from chicory (pre-biotic fiber) improves digestion and gut health by encouraging probiotics to flourish.

A study of Dr. Francis **Pottenger's cats** (over 600 of them) revealed that when the animals were fed only cooked or processed food over many generations, degenerative disease presented itself at younger and younger ages. These animals suffered from kidney, heart, thyroid and gum diseases, as well as allergies, infections and a host of other maladies. They had fewer enzymes to give their offspring, resulting in minimal reserves of enzymes in the ensuing generations. We have seen this evidenced in the early onset of arthritic conditions.

***We at NWC Naturals Pet Products will never use any animal based enzymes such as pancreatin from slaughterhouse pigs and cows.***

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First, they are not as efficient as vegetarian enzymes and they are not as safe as vegetarian enzymes. The following side effects are possible **with animal based enzymes such as pancreatin; ox bile or other animal sourced enzymes including hydrochloric acid**. High doses may cause diarrhea, cramping, or vomiting. Allergic reaction to animal based products may include facial swelling, hives, scratching, and sudden onset of diarrhea, vomiting, shock, seizures, pale gums, cold limbs, or coma.

That is why the formulators of Total-Zymes® will only use safe human quality vegetarian enzymes, but formulated just for pets.

**Please keep in mind; enzymes do not survive the high heats required to process commercial pet foods. Both kibble and canned foods are cooked!**

A diet of commercial pet foods puts excess strain on a pet's digestive system. Temperatures as low as 118 degrees Fahrenheit will deactivate and kill all enzymes, requiring the pet's body to produce the extra enzymes it needs for digestion while robbing the systemic enzymes needed to run the body.

#### **Benefits of Enzyme Supplementation**

- Increases the bioavailability of nutrients by helping to convert food into fuel the body can use for energy.
- Shortens transit time of food through the gastrointestinal tract, thus decreasing toxic byproducts.
- Helps decrease the odor of feces because of less rotting and putrefaction.
- Helps pets that tend to vomit after eating.
- Improves skin and hair coat.
- Assists in recovery from surgery, illness or injury.

Many veterinarians have found enzyme supplementation to be beneficial in immune and digestive disorders, cancer prevention, joint disorders, poor skin and hair coat, excessive shedding, allergies and lethargy (low energy levels). These benefits are compounded when probiotics are also added to the mix.

# Questions

## 1. How do I use Total-Zymes® properly?

**Total-Zymes®** should be taken with every meal. One scoop of Total-Zymes® will digest one cup of any pet food. Total-Zymes® should be consumed just before or during meals, for help with stomach related symptoms like gas, burping, water retention, bloating, fatigue, etc. Mix with canned food or sprinkle over dry kibble.

## 2. Why are the enzymes in this formula measured in FCCPU instead of mg.?

Enzymes are measured by reaction time, rather than by amount or weight. The unit measurements used for each enzyme refers to the length of time and the intensity of the reactions it creates.

## 3. What can I expect to see with my pet after using this formula?

Pets suffering from gas, poor digestion, bloating, cramping, fatigue after eating or odd cravings, can expect these symptoms to diminish after just a few meals when taking this formula. Other enzyme deficiency related conditions like stool eating; chronic constipation, loose stool or joint pain will improve over time depending on the individual animal. You should notice significant improvement of these conditions with 2-3 weeks if you are taking the formula faithfully.

## 4. What is the difference between plant and animal based enzymes?

Plant-based enzymes are derived from many sources including pineapple, papaya and mushroom-based fermentation. Animal-based enzymes are extracted from the pancreatic tissue of slaughtered pigs and cows. The high pH environment of the small intestine is the only place animal-based enzymes can function, as they are extremely sensitive to low pH ranges. This means that animal based enzymes may not survive outside of this environment. Plant-based enzymes are not destroyed by the acidic conditions of the stomach and are therefore stable in the upper stomach, where they can begin processing food immediately.

## 5. Can I give my pet Total-Zymes® while he or she is on medication?

This formula has not been shown to interact with any medication, however if you have any specific questions, please direct them to your veterinarian.

## 6. Are there side effects with Total-Zymes®?

When taken as directed there are no known side effects with this formula.

## 7. Can I give Total-Zymes® to my puppies or kittens?

This formula can be safely given to all pets regardless of age. Pets need Total-Zymes® as soon as they start eating processed food. Add **Total-Zymes®** to any cold or room temperature food or beverage. Remember heat and cooking destroys enzymes.

## 8. What if my child gets into the Total-Zymes® powder and eats a lot?

A child could eat the entire container of **Total-Zymes®** and there would be no bad side effects except possibly a mild cleansing effect such as temporary diarrhea. The formula is 100% human grade.

## 9. Would any pet benefit from Total-Zymes®?

Yes any pet that would naturally eat an all raw food diet in the wild will benefit greatly from **Total-Zymes®**. And really do you know any pets that cook their food in the wild?



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