What is WRONG with that dog? Possibly EPI...

Have you ever noticed a dog that may be a little too skinny, seems to eliminate a little too often, and appears a little too hungry, possibly exhibiting a personality change???. It might have EPI.

EPI is a condition that has been too often misdiagnosed causing much heartache for the family and much pain for the dog. Please help us bring awareness to EPI by sharing the following information regarding how to recognize it, how to test for it and how to properly treat it.

![Claire prior to proper EPI diagnosis](image1) ![5 months later after proper diagnosis & treatment](image2)

Untreated or misdiagnosed dogs with EPI, may die a painful death either by starvation or organ failure.

![Pandy, courtesy of rescue mom, Janis](image3) ![Pandy prior to proper EPI diagnosis](image4) ![Pandy after proper treatment for EPI](image5)

EPI ~ Exocrine Pancreatic Insufficiency

Stop this suffering in our canine companions
Learn to recognize EPI symptoms
Stop the misdiagnosis
Learn how to treat and manage EPI

The Condition

EPI is an exocrine pancreatic insufficiency condition. The pancreas has two major functions: (1) endocrine: to secrete hormones/insulin (2) exocrine: to secrete digestive enzymes.

Exocrine pancreatic insufficiency (EPI) is the inability of the pancreas to secrete the necessary digestive enzymes, amylase to digest starches, lipase to digest fats, and trypsin and protease to digest protein. When these enzymes are not
available to help digest nutrients, the nutrients cannot be used by the body. The body in essence starts to starve. In addition, due to the lack of proper digestion of nutrients, exocrine pancreatic insufficiency is often accompanied by structural and functional changes in the tissue lining of the small intestine that further impairs nutrient absorption. SIBO (small intestinal bacterial overgrowth) and/or B12 deficiency (low cobalamin and high folate) often accompany EPI as secondary conditions.

**Possible Symptoms**

- Gradual wasting away despite a voracious appetite
- Eliminating more frequently with voluminous yellowish cow-plops (sometimes grayish)
- Eating their own stools, or other inappropriate substances
- Increased rumbling sounds from the abdomen
- Increased passing amounts of flatulence
- Some experience intermittent watery diarrhea or vomiting
- Some dogs do not show any typical signs
- Some experience a change in personality

These symptoms are not exhibited until 85% -90% of the pancreas is atrophied.

**Testing**

A trypsin-like immunoreactivity (cTLI) blood test [http://www.cvm.tamu.edu/gilab/assays/TLI.shtml](http://www.cvm.tamu.edu/gilab/assays/TLI.shtml) will show the dog’s ability to produce digestive enzymes (lipase, protease, amylase). The normal range is between 5.75 – 45.2. A dog must fast at least 12 hours prior to blood test. The cTLI test costs approximately $100 USA dollars.

**Treatment**

Treatment of EPI may be regulated after some trial and error. Treatment includes porcine pancreatic replacement enzymes necessary for life. Most EPI dogs respond well to these enzymes administered with every meal. Some may also need B12 shots for Cobalamin Deficiency, and/or Tylan or Metronidazole antibiotics to reduce possible SIBO. A change in diet is also often recommended to grain-free, raw (balanced) or hydrolyzed diets. Grains (food with more than 4% fiber in it) should be avoided. Some dogs need fat reduced diets, others do not. Not every vet recognizes the symptoms or realizes that breeds other than GSD can have EPI. Misdiagnosed, these dogs suffer greatly and may eventually die a painful death. Many are surrendered out of frustration or euthanized because of enzyme expense. But there are other reasonable alternatives!

*Wayde from GSRNE (German Shepherd Rescue NE)*

*Photo is a courtesy of rescue dad, Peter [http://www.gsrne.org/wayde.htm](http://www.gsrne.org/wayde.htm)*
Where does EPI come from???

Previously EPI was suspected to be caused by autosomal recessive genes. In preliminary data from a 2008 research study at Texas A&M and Clemson University, and a 2010 published Helsinki study, it is now confirmed that EPI is not autosomal recessive but rather more complex. It is most likely a multiple genetic condition and may possibly have some environmental factors. A larger study is currently underway at Clemson University in SC with Dr. Leigh Anne Clark. To learn more about the EPI genetic research, please feel free to contact Dr. Clark at lclark4@clemson.edu With EPI, traits may vary in degrees of severity and symptoms may be exacerbated by physical or emotional and/or environmental stress.

What we can do!

EPI was previously thought to only effect German Shepherd Dogs - - do not make this mistake! EPI is now surfacing at an alarming rate in all breeds. Any dog can be at risk. Please help spread the word about EPI …. Only through awareness can we stop this needless suffering in our beloved companions.

For complete information about EPI visit:
http://www.epi4dogs.com/

Learn about symptoms, treatment, options and sources in managing this devastating condition.

For EPI Support feel free to join: http://www.epi4dogs.com/apps/forums/

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