

## EXOCRINE PANCREATIC INSUFFICIENCY (EPI)

### **What is exocrine pancreatic insufficiency?**

Exocrine pancreatic insufficiency (EPI) is the inability to produce sufficient pancreatic enzymes to digest fats, carbohydrates and proteins. Because there is poor digestion and resulting malabsorption of nutrients, weight loss commonly occurs despite an increased appetite.

Affected dogs often have large volumes of pale, fatty feces. This condition is called *steatorrhea* or fat in the stool.

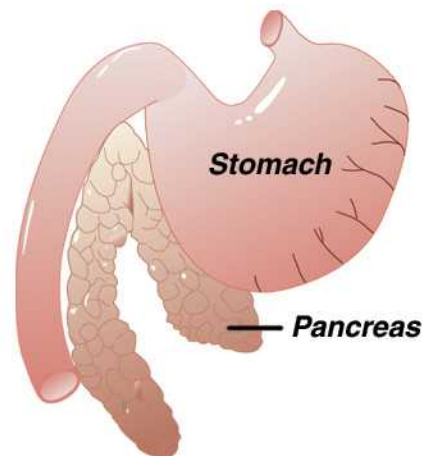
### **What is the pancreas?**

The pancreas is a v-shaped gland lying close to the stomach and small intestine. Secretions from the pancreas are carried to the small intestine by the pancreatic duct.

### **What is the function of the pancreas?**

The pancreas produces enzymes that digest fats, carbohydrates and proteins. This is the *exocrine* function of the pancreas.

In addition, the pancreas also produces insulin and other essential hormones and compounds. Insulin regulates carbohydrate metabolism and blood sugar (glucose) levels. This *endocrine* function is separate from the digestive or exocrine function.



### **What causes this disease?**

The causes can be congenital (present from birth), inherited or acquired as the result of pancreatic infection or injury. The condition is seen more commonly in German Shepherds, Collies and English Setters.

The main cause appears to be a progressive loss of pancreatic cells but chronic pancreatitis can also result in EPI.

### **What are the usual signs of the condition?**

Young adult dogs are often affected and have chronic diarrhea or very soft, bulky, fatty looking feces and excessive appetites, occasional vomiting and gradual weight loss over a period of months.

### **How is the condition diagnosed?**

Simple blood and fecal tests can accurately detect if the condition is present. Trypsinogen-like immunoassay (TLI) is the preferred diagnostic test for EPI. TLI in combination with Vitamin B12 and Folate level tests give us the best assessment of your pet's pancreatic function.

### **Is it possible to treat EPI?**

Highly digestible, low fat diets together with pancreatic enzyme replacement will usually stabilize the condition. Treatment is usually for the rest of the dog's life.



***Is diabetes involved with the condition?***

Rarely. In cases that are the result of chronic pancreatitis, the cells that produce insulin can also be affected. In these cases diabetes mellitus (“sugar diabetes”) may also be present.

***What is the prognosis?***

Once an accurate diagnosis has been established, most pets do well with treatment.

***Is it possible to cure the condition?***

Cases due to chronic pancreatitis sometimes recover as the pancreas heals. The main cause of EPI is the progressive destruction of the exocrine cells of the pancreas. This cannot be cured, only managed with medications and diet.

---

*This client information sheet is based on material written by Ernest Ward, DVM.  
© Copyright 2005 Lifelearn Inc. Used with permission under license. February 10, 2008*