

# Megaesophagus

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## BASIC INFORMATION

### Description

The esophagus is the muscular tube that carries swallowed food and water from the mouth to the stomach. Diseases that affect the muscles of the esophagus interfere with the passage of food and water through the esophagus. Under normal circumstances the esophagus is collapsed, but loss of muscle tone causes it to become relaxed and distended. A distended, enlarged esophagus that lacks good muscle tone is called a *megaesophagus*. Megaesophagus is more common in dogs than in cats.

### Causes

In some dogs, myasthenia gravis causes megaesophagus. In this disease, antibodies are produced that interfere with muscle function, causing the esophagus to become paralyzed. Some hormonal problems (hypoadrenocorticism, possibly hypothyroidism) can potentially lead to megaesophagus in dogs. In puppies, a birth defect involving the blood vessels leaving the heart can cause narrowing of the esophagus, with formation of a dilated section in front of the heart. (See the handout on **Persistent Right Aortic Arch**.)

Congenital megaesophagus is an inherited trait in the wirehaired fox terrier, miniature schnauzer, and possibly the Chinese shar-pei. Megaesophagus may arise with certain infections (canine distemper, tetanus) and poisonings (botulism, lead, organophosphates).

In both dogs and cats, megaesophagus may develop in front of an esophageal stricture and with dysautonomia, a rare neurologic disease. In many animals, no specific cause is ever identified, and the disease is referred to as *idiopathic megaesophagus*.

### Clinical Signs

The main clinical sign is regurgitation of undigested food, water, saliva, or mucus. Some animals have problems swallowing, which can be worse with certain types of food (dry kibble versus canned).

The presence of megaesophagus increases the risk of aspiration pneumonia from inhalation of food or fluid into the lungs. Coughing, fever, depression, lethargy, and loss of appetite are common with pneumonia. Occasionally the enlarged esophagus can be felt at the opening of the chest. Other signs may be present, depending on the underlying cause.

### Diagnostic Tests

Chest x-rays are commonly recommended in animals with regurgitation or suspected pneumonia. Additional x-rays or a video x-ray (fluoroscopy) may be done after food containing barium is swallowed (esophagram). The barium highlights the walls of the esophagus.

Laboratory tests are often done to look for evidence of infection and inflammation from pneumonia. Hormonal assays, tests

for myasthenia gravis, and tests for toxins may also be submitted. Many of these are submitted to outside laboratories, and results may take some time. Further tests may also be recommended to rule out other diseases that cause similar signs.

## TREATMENT AND FOLLOW-UP

### Treatment Options

Animals with aspiration pneumonia usually require hospitalization for intravenous fluids, antibiotics, and intensive nursing care. If a specific underlying disease or cause of the megaesophagus, such as hypothyroidism or myasthenia gravis, is identified, treatment is directed at that disease. Most underlying diseases are treated medically, but surgery is required for a persistent right aortic arch.

Animals with idiopathic and other types of megaesophagus require special feeding techniques so that they can take in adequate amounts of food and the risk of aspiration pneumonia is decreased.

- The most common technique is to feed the animal from an elevated position. Very small dogs and most cats can be held upright by one person while another feeds the animal. Large dogs are best fed and watered by placing their bowls on a tall platform.
- After feeding, the animal is held upright for at least 15 minutes so that the food gently falls into the stomach.
- Feeding several, small meals is often better than feeding large meals.
- The best consistency of the food to feed varies among animals. Some do better with gruels, whereas others do better with solid, meatball-shaped materials.

In some patients, adequate intake of food and water cannot be accomplished with these techniques, and placement of a feeding tube into the stomach may be necessary.

### Follow-up Care

Animals with megaesophagus require regular and consistent follow-up, often at weekly intervals initially. Close monitoring is done until the underlying disease and the megaesophagus are under control or successfully managed. If at any time your animal develops trouble breathing or sudden onset of a cough or fever, seek immediate veterinary care.

### Prognosis

Prognosis for most animals is guarded (poor to uncertain) unless a treatable underlying cause is found. Even with successful treatment of the cause, megaesophagus often persists. Dogs with idiopathic megaesophagus may develop aspiration pneumonia at any time, and any particular episode of pneumonia can be life-threatening.