



Chihuahua

Update

Vol. 6, No. 1 ■ January 2007

Collapsing Trachea Requires Prompt Veterinary Attention

Chihuahua owner Patricia Pittore recalls how her long-coated 9-year-old dog, CH Charming Chis Rodney, began coughing excessively and having difficulty breathing. A generally healthy, alert dog, who at one time was ranked No. 6 in the country, "Rodney" also had slowed down and become less active.

"I suspected that Rodney might be suffering from a collapsing trachea," says Pittore of Rockport, Mass. "He was coughing and snorting more than the average Chihuahua, and it was obvious he was having trouble breathing."

A trip to the veterinarian confirmed Pittore's suspicion. The veterinarian prescribed medication to help reduce the coughing. Now, five years after the diagnosis, Rodney is doing well. Though he must take medication every day and stay inside when the weather is extremely hot or cold, he lives a basically normal life.

Collapsing trachea is a condition common in Chihuahuas and other toy breeds, including Pomeranian, Yorkshire Terrier, Toy Poodle and Maltese. While any breed can develop the condition, it is most prevalent in smaller dogs. Collapsing trachea occurs in both males and females, and though the condition can occur at any age, it usually occurs in dogs over the age of 6.

Distinguishing Collapsing Trachea

The condition is characterized by a persistent cough sometimes described as a hacking or honking sound. A dog also may experience gagging, and the condition seems to worsen after exercise. Additional signs include labored breathing and a bluish coloration to the gums. Collapsing trachea can be life-threatening should a dog's airway close completely.

Collapsing trachea occurs when a dog's airflow in and out of the lungs is cut off. The trachea, also called the windpipe, is a rigid tube of tracheal rings made of cartilage. It extends from the throat into the top of the lungs. Normally, the tube is circular but when weakened, it flattens or collapses from top to bottom, cutting off a dog's airflow. The collapse can

occur at any point along the windpipe. Once a collapse occurs and coughing begins, the coughing irritates the trachea and could cause the production of mucus that further obstructs the windpipe. Early attention by a veterinarian is important to break the cycle.

The condition should not be confused with kennel cough, a highly contagious illness characterized by inflammation of the upper respiratory system, or reverse sneezing, which is when the pharynx (the back of the throat) goes into spasms. When reverse sneezing occurs, a dog has difficulty drawing air in. Signs include stretching the neck, thrusting the elbows out, and honking, wheezing or snorting. Unlike collapsing trachea, reverse sneezing does not require veterinary attention.

Radiographs are sometimes used to confirm a diagnosis of collapsing trachea; however, studies show that in about 50 percent of cases, an abnormal trachea could appear normal because the radiographic image is a static picture capturing one moment. As a result, some veterinarians will gently apply pressure to a dog's neck to induce coughing and produce a more accurate view of the trachea. In more severe cases, diagnostic methods such as airway sampling, tracheal wash and bronchoscopy may be used to diagnose a dog with collapsed trachea.

A veterinarian performs airway sampling by taking a sample during a bronchoscopy to determine if a dog's

airway is inflamed. A bronchoscopy is used to diagnose airway problems or to remove an object in the throat. A veterinarian looks through a dog's airway using a bronchoscope, a thin instrument used to examine the throat, larynx and lower airways. A tracheal wash involves inserting a catheter into the trachea, flushing sterile water in and aspirating the fluid out to check for bacteria to determine whether a dog may have an illness such as pneumonia or kennel cough.

Treatment Options

The specific causes of collapsing trachea are unknown, but veterinarians and researchers believe that environmental stimulants, such as smoke, dust, weather extremes, stress, and undue excitement, could be factors. Abnormal weakness in the cartilage of the trachea is thought to be one underlying cause; however, congenital defects, airway disease, trauma and tumors could cause the trachea to collapse.

Bob Ireland, D.V.M., of Lakeland, Fla., the veterinarian who diagnosed Rodney's collapsing trachea, also lists obesity as among the most frequent triggers for collapsed trachea as it affects pressure on the tracheal rings. "Unless a dog is extremely heavy, I usually don't see the condition in my patients," he says. "It generally

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Steps to Help Prevent Collapsing Trachea

- Keep your dog out of a dusty or smoky environment.
- Try to reduce stressful situations.
- Keep high-risk dogs in climate-controlled areas and avoid prolonged exposure to heat and humidity.
- Consult your veterinarian at the first sign of persistent coughing.
- Check for other contributing illnesses, such as bronchitis, pneumonia or a common cold.
- Switch from a collar and leash to a harness to take pressure off your Chihuahua's throat area.
- Make sure your dog has plenty of exercise and try to maintain a healthy weight to prevent obesity. If a dog already suffers from collapsing trachea, try to keep the dog as active as possible.
- Don't breed a dog that suffers from collapsing trachea to reduce the risk of passing the condition on to offspring.

Collapsing Trachea

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appears in dogs that are well-cared for but are fed too much or too often."

One of the best ways to prevent collapsing trachea is to keep a dog's weight under control, Irelan recommends. Exercise can be difficult in dogs that already are obese and have been diagnosed with collapsing trachea because it can aggravate the condition and cause coughing fits.

Treatment often begins with a steroid medication that is used to reduce the inflammation in the trachea and an antibiotic for any secondary infection that could occur. Cough suppressants and muscle relaxants also may be used. No cure exists, and a predisposed dog is likely to have subsequent bouts.

When necessary, a tracheal tube can be inserted for a day to open a dog's airway. In severe, life-threatening cases, surgery can be performed. A veterinarian inserts a small shunt to open the trachea and put it back into a normal round position. The shunt helps to open the trachea back into

a normal round position instead of the flat shape it takes during a collapsing trachea.

H. Powell Anderson, D.V.M., of the Andersonville Animal Clinic in Dillwyn, Va., believes that surgery should only be performed if no other options exist. "Surgery is not an easy solution, and should only be a last resort in extreme cases," he says. "Surgery is not the most effective way to treat the problem and serious complications could occur. I have never seen an operation for tracheal collapse completely correct the problem or turn out the way it was hoped. This surgery can often cause more health problems for a dog."

Taking the Disorder Seriously

Though no research has proved that collapsing trachea is a genetic condition, Anderson advises owners of Chihuahuas and other toy breeds not to breed dogs that suffer from the condition. "If your Chihuahua or other breed suffers from a tracheal collapse, you do not want to continue that particular bloodline," he says. "Not breeding a dog with collapsing trachea

potentially will help to avoid health problems with future Chihuahuas and minimize the problem as a whole."

Unfortunately, some owners and breeders may not take collapsing trachea seriously. "Though collapsing trachea is not caused by a disease or cancer, it is not a simple matter to deal with," Anderson says. "It may not seem life-threatening, but it could affect a dog's life span and quality of life."

Anderson stresses that if a dog shows signs of a collapsing trachea, immediate veterinary attention is necessary. Despite the serious nature of the condition, he assures breeders and owners that paying close attention to a dog's weight and diet and taking proper measures when signs occur will enable a Chihuahua to live a long, fulfilling life. ■

Purina appreciates the support of the Chihuahua Club of America and particularly to Donna M. Shearer, chairwoman of CCA's Health MATTERS!, in helping to identify topics for the *Purina Pro Club Chihuahua Update* newsletter.

Feeding to Ideal Body Condition Can Extend a Dog's Healthy Years

If your dog is starting to get a bit pudgy, perhaps your New Year's resolutions should include helping him to lose weight. Obesity is the No. 1 nutritional health issue for dogs. Fortunately, owners can reduce obesity in their dogs — and extend their healthy years — by maintaining them in ideal body condition.

Breeders and enthusiasts who participate in canine competition are keenly aware of the importance of keeping dogs in a lean body condition. Besides the benefits of having a fit, energetic performance dog, they realize the potential impact of obesity on a dog's health. Among the serious health risks associated with obesity are early onset of chronic diseases, such as osteoarthritis and hip dysplasia.

The Purina Life Span Study

According to a groundbreaking Purina Life Span Study, feeding dogs to maintain ideal body condition can extend median life span by 15 percent, or 1.8 years for the dogs in the study. The 14-year study — the first lifelong canine diet restriction study — also showed that dogs in the study fed to ideal body condition were treated for chronic conditions two years later on average than those in the control group.

Conducted at the Purina Pet Care Center in Gray Summit, Mo., from 1987 to 2001, the Purina Life Span Study proved for the first time the benefits of feeding dogs to an ideal body condition throughout their lives. The study paired 48 8-week-old Labrador Retriever puppies with littermates according to gender and body weight and randomly assigned them

to either a control or lean-fed group.

The dogs received the same 100 percent nutritionally complete and balanced food — only the quantity differed. Dogs in the control group were fed *ad libitum* or 100 percent of maintenance requirements during 15-minute daily feedings, and their lean-fed littermates were fed 75 percent of the amount their control siblings consumed.

Consistently, the lean-fed group had a significantly greater mean percentage of lean body mass and maintained significantly lower body condition scores. The lean-fed group had a mean score of four to five (ideal), compared to six or seven (overweight) in the control group. The lean-fed dogs also experienced a two-year delay in age-associated loss of lean body mass with the average age of onset at 11 years versus 9 years for the control group. The lean-fed group also had fewer visible signs normally associated with aging, such as graying muzzles and reduced activity.

The study found that maintaining dogs in ideal body condition:

- Resulted in an extension of the median life span of 15 percent;
- Helped reduce the potential for developing weight-related health conditions; and
- Reduced the percentage of body fat.

Feeding to Ideal Body Condition

Starting with puppyhood, an owner should feed a dog to ideal body condition. Approximately 35 percent of adult dogs seen by veterinarians in primary practice are overweight or at risk for obesity-associated health prob-

lems, yet studies show that most owners do not recognize that their own dogs are overweight. To help reduce the risk of obesity, owners should monitor a dog's body condition using both visual and hands-on evaluations.

The Nestlé Purina Body Condition Score System, a standard used by veterinarians to evaluate body physique in dogs, provides an assessment of the proportion of fat and lean. The Body Condition Score System was formulated on a nine-point scale, with a score of six through nine reflecting progressively more overweight dogs. The ideal body condition score is four or five.

Meanwhile, a hands-on evaluation can be done using the Purina Rib Check. Place your thumbs on your dog's backbone and spread both hands across his rib cage. If you can't feel the ribs easily, your dog probably needs to lose weight. The Rib Check also involves examining your dog's profile from the side — the abdomen should appear slightly tucked up behind the rib cage — and from the top — you should see an hourglass shape.

Based on the results of the Purina Life Span Study, feeding dogs to ideal body condition can not only give them more healthy years but also improve their quality of life. So, as you begin the new year, take steps to help your overweight dog lose weight. Sometimes, simply cutting back on treats or feeding slightly less food can make a difference. Your veterinarian should be able to provide advice for controlling more severe weight problems. ■