

# Bacterial Endocarditis in Dogs

## HIGHLIGHTS

- Bacterial endocarditis is primarily a disease of middle-aged or older large-breed dogs.
- There is typically high morbidity and mortality.
- Although there is insufficient evidence linking dental disease to endocarditis, antibiotic prophylaxis is still standard for medical and legal reasons.
- The varied and often nonspecific clinical signs and course of the disease make diagnosis difficult.

Bacterial endocarditis is a rare disorder in dogs that can cause serious consequences and mortality. It affects primarily middle-aged to older large-breed dogs that present with a combination of nonspecific signs of systemic illness, including depression, weakness, lethargy, weight loss, anorexia, and intermittent or shifting lameness. A febrile dog with a new heart murmur is considered a classic presentation, but these findings may be overemphasized; in one study, fewer than half had a new or previously diagnosed heart murmur at presentation. Echocardiography is used for

diagnosis, but endocarditis of the mitral valve can appear similar to—even indistinguishable from—mitral valve endocarditis. Cultures of the urine and blood should be obtained when the dog is not on antibiotic therapy and treatment should be based on culture and sensitivity results. Bacteria are shielded from standard antibiotic treatment regimens so high serum levels of bactericidal agents are required. Intravenous therapy is indicated for 1 to 2 weeks and then continued as subcutaneous or oral treatments. Dogs should also be treated for congestive heart failure, acid-base imbalances, and fluid and electrolyte imbalances. Dogs with bacterial endocarditis are occasionally not diagnosed and are given glucocorticoids, which result in improvement for the first day or two, but then clinical signs will worsen. Prognosis for all dogs with bacterial endocarditis is poor to grave.

Canine bacterial endocarditis: A review. Peddle G, Sleeper MM. *JAAHA* 43:258-263, 2007.