

## Causes of Left-Sided Heart Enlargement

- ✓ Congenital lesions may cause left-sided heart enlargement in neonates younger than 1 year.
- ✓ Subvalvular aortic stenosis in dogs (Figures 3-8 and 3-9) or valvular stenosis in cats.
  - ♥ Common and can be very subtle. Often the left atrium is not appreciably enlarged. Because the hypertrophy is concentric, the outside contour of the heart may be minimally enlarged. The disease usually progresses to include eccentric hypertrophy of both the atrium and ventricle, resulting in obvious enlargement of both chambers.
  - ✓ Often occurs in Newfoundlands and other large breed dogs.
- ✓ Patent ductus arteriosum (PDA) in dogs and cats.
  - ♥ Classic bulge in region of aortic aneurysm (1 to 2 o'clock on VD/DV view). The bulge merges with the contour of the remainder of the descending aorta.
  - ✓ Signs of left atrial and ventricular enlargement are usual.
  - ✓ Enlarged pulmonary arteries and veins are a result of overcirculation.
  - ✎ **Don't miss this disease!** These animals can go into failure at a young age unless detected and treated.
  - ✓ PDA is common in Poodles, Pomeranians, German Shepherds, Collies, and Shelties.
- ✓ Ventricular septal defect (dogs and cats)
  - ✓ Signs of left atrial and ventricular enlargement are usual with enlarged pulmonary arteries and veins as a result of overcirculation.
  - ✓ Common in Bulldogs.
  - ✓ Most common anomaly in cats.
- ✓ Mitral valve dysplasia (dogs and cats)
  - ✓ Signs of left atrial and ventricular enlargement are usual.
  - ✓ Often the left atrium is disproportionately enlarged compared with the ventricular enlargement.



**Figure 3-8**

A 3 month old female Alaskan Malamute with aortic stenosis. Note increased length (on VD) and height (on lateral view) of heart (subtle) and increased size of aortic arch.