

## Highlighted Veterinary Case

### Henry's Story

Henry came to Larimer Humane Society as a stray puppy in early April 2008. He was quite the happy young pup- ears perked, tail wagging, tongue hanging out. But Henry just didn't look quite right. His left front leg was very crooked. We suspected that he had been affected by a birth defect or an old injury to the leg. He was not in any pain, so the decision was made to hold him in the shelter in hopes that his owner would come for him.

Five days later, Henry remained in the stray room. He passed his behavior evaluation with flying colors- that funny leg certainly did not slow him down! Henry was sent to Colorado State University's Veterinary Medical Center for radiographs. The pictures confirmed our suspicions; Henry was diagnosed with an angular limb deformity. Angular limb deformities may be due to genetic predisposition or may be trauma related.

In Henry's case there were no signs of trauma and his deformity fell into the most common category for types of front limb deformity. In young animals, bones have open growth plates. These plates are the source of new bone formation and allow for bones to get longer. As animals age, the plates close and no new bone is formed. Henry had a growth plate in his leg that closed too soon.

The front leg is made of two bones- the radius and the ulna. The plate that closed prematurely in Henry's leg was located in the ulna. This closure meant that the bone could only grow from one end. The crooked leg came into play because the radius was still growing normally. Because the joints are all connected, when one bone grows faster than the other, it must bend. While Henry was not in real pain at the time, these crooked legs often cause pain and lameness as the conditions progress. Henry's elbow was already showing early signs of abnormality and, without treatment, he was likely to become quite painful in the future.

Surgery is required to treat an angular limb deformity. In the front leg, the radius bears the weight of the animal and the ulna is less important to limb function. Orthopedic surgery may be performed to help the radius grow more normally. In this surgery, a piece of the ulna is removed from the middle of the bone. This allows the radius to continue to elongate in a more normal shape. This surgery is a great option in a young animal that is still growing. However, the cost can be high and the recovery time lengthy.

For Henry, it was determined that the best option would be amputation. Animals adapt very well to having only three legs. Because Henry is such a young energetic dog, we believed that he would adjust very well to having his leg amputated. The amputation was performed at Larimer Humane Society and Henry was sent to a foster home for recovery. Within a few days, he was up and about and doing very well without his crooked leg. He stayed in foster for a couple of weeks and by the time his incision was healed; he acted as though he'd never had 4 legs. Although Henry lost his leg, he stole the hearts of his foster family. They adopted him at the end of his recovery period!

