

## Early Detection, Prevention Best Treatment for Arthritis

By Patricia Olson, DVM, PhD, CEO, of Morris Animal Foundation

Arthritis eats away at joint health and patient quality of life. Chronic pain associated with the disease affects tens of millions of pets, horses and people, according to the Arthritis Foundation. As a result, many human and animal health researchers seek a cure, and Morris Animal Foundation (MAF) has supported these efforts by funding about 15 studies on arthritis-related issues.

Veterinary researchers estimate that 20 percent of adult dogs suffer from osteoarthritis and 45 percent of cats also endure arthritic pain. Until researchers close in on a cure for arthritis, watchful pet owners and pet-care professionals play an important role in minimizing pain and discomfort, as you will see in the arthritis videos showcased in the MAF web exclusive.

Early warning signs of animal arthritis often go unnoticed because they can be subtle: A reluctance to jump, lack of enthusiasm for play and clumsiness can signal muscle weakness. More obvious signs include hesitancy to use a limb and difficulty sitting and/or standing. Physical signs may also include inconsistent muscle mass, which is manifested as narrow or “skinny” back ends.

Once arthritis is identified, pet owners can alter activity levels and adjust their pets’ routines. Prevention is also possible by selecting specialized food formulas geared toward the size of your pet to promote balanced skeletal growth and muscle development.

The goal is to control the rate of development so muscles keep pace with overall growth, said James Cook, DVM, PhD, director of the Comparative Orthopaedic Laboratory at the University of Missouri. If an animal’s bones grow too quickly, muscles and joints can be overpowered, which can lead to osteoarthritis. Muscle-building activities like leash-walking, hill climbing and swimming—all “non-concussive” activities—are helpful in this regard.

Cook—who won the MAF Thank Your Vet for a Healthy Pet® contest in 2007—is working with a team of researchers to identify biomarkers to find arthritis before it strikes—similar to biomarkers for human prostate or breast cancer.

Keeping weight down is another essential component to prevention. “The best prevention and treatment plans prioritize weight management,” said Cook, who added, “If I had to choose what to spend my money on for management of arthritis, that’s what I would spend it on—weight management and building muscle mass.”

At home, pet owners can minimize the effects of arthritis. In addition to maintaining a healthy weight with appropriate diets, nutraceuticals like glucosamine, chondroitin and essential fatty acids have been shown to reduce inflammation within the joint, according to research. Enhanced home and boarding environmental elements—like padded bedding, the use of ramps and/or stairs to minimize jumping and providing comfortable temperatures—are also helpful.

While the jury is out on the scientific benefits of nutraceuticals, anecdotal evidence is encouraging and a National Institutes of Health study showed benefits of using nutraceuticals for a group of human patients

with moderate to severe arthritis pain. Several pet food companies have also developed products to alleviate joint discomfort.

With an eye toward treatment, MAF is funding a study to assess complementary medical approaches. Darryl Miller, DVM, lead researcher at the University of Tennessee, seeks scientific proof that electrical nerve stimulation, low-level laser therapy and acupuncture are effective treatment tools for arthritic dogs. Studying complementary medical approaches in a scientific way will provide veterinarians with important information as to whether to recommend some of these treatments.

An increasing number of people recognize arthritis in dogs, but many fail to recognize signs in cats.

“We are just starting to understand that it is more prevalent in cats than we initially thought,” said Cook. “Dogs are the poster children, but you have to keep cats and horses high on the list as well. It is prevalent and growing in all these species.”

This multispecies aspect opens a dialogue between human and animal doctors.

“It is the same overriding disease process in dogs, cats, horses and people,” Cook added. “The great thing about that is we can make progress for all species by investigating one.”