

Aging & Osteoarthritis

Aging

Often owners of geriatric dogs attribute specific changes in behaviour and lifestyle, such as decreased appetite, changes in sleeping patterns, or decreased activity level, to their pet becoming older. Aging, however, is not a disease. The changes associated with aging are often an indication of an underlying medical issue and may be progressive and hastened by stress, the environment, genetic factors, malnutrition and lack of activity. The most common problem of the musculoskeletal system in geriatric dogs is osteoarthritis.



Evolution of Osteoarthritis 1. Bone 2. Cartilage 4. Cartilage remnants 5. Destruction of cartilage

3. Thinning of cartilage

What is Osteoarthritis?

Osteoarthritis is a chronic degenerative disease that occurs when the cartilage in the joints becomes damaged. Pets with osteoarthritis experience a decreased quality of life, limited activity, reduced performance, muscle atrophy, pain and discomfort, and joint stiffness with decreased range of motion. A cycle of pain, reduced activity level, joint stiffness and loss of strength occurs as the osteoarthritis progresses.

Signs of osteoarthritis

Early signs of osteoarthritis may be subtle and easy to miss. These may include:

- Reluctance to take walks of usual length
- Stiffness (May disappear after warming up)
- Difficulty climbing stairs, climbing in the car, on the bed or sofa
- Difficulty rising from rest
- Limping
- Abnormal gait
- Licking over a single joint
- Acting withdrawn, spending less time playing with family
- Soreness when touched
- Aggression when touched or approached

Prevention/Treatment

Early treatment is critical to slow the progression of arthritis

- Weight reduction Obesity is one of the most common conditions in geriatric dogs and it
 worsens the effects of arthritis. Maintaining a lean body weight is critical to decrease the
 stress on the joints. A weight loss diet combined with regular exercise can help ensure
 your pet's ideal body condition.
- Controlled exercise Newer approaches to the management of osteoarthritis include proper exercise to maintain muscle mass and decrease pain. Frequent, low impact
 - exercise is generally well tolerated and may include activities such as swimming, walking through shallow water, leash walking and controlled jogging.
- Nutraceuticals such as glucosamine/chondroitin sulfate and omega fatty acids contain compounds that support cartilage structure, prevent further deterioration, suppress inflammation and reduce free radical damage. These are most effective when started early to protect healthy cartilage and continued long term.
- Injectable chondroprotective agents, such as Cartrophen, can help preserve cartilage in joints and slow the progression of osteoarthritis.
- Acupuncture, massage and heat and cold therapy may provide additional pain control.
- Medications such as nonsteroidal anti-inflammatories and analgesics are available to decrease inflammation and suppress pain in patients with more advanced arthritis.

How can Rehab Help?

Senior rehabilitation and fitness programs have become an important component of the management of osteoarthritis. Some benefits of a complete rehab program include weight reduction, increasing muscle strength and endurance, increasing joint range of motion,

decreasing pain, as well as improved performance, speed, quality of movement, and function. These benefits can be achieved through:

 Aquatic therapy, including swimming and the underwater treadmill. The buoyancy provided by the water helps to limit the concussive impact on



joints, allowing these pets to move more comfortably then on land. The increased resistance created by moving through water promotes increased muscle strength and cardiovascular endurance. The implementation of aquatic therapy in a senior management program can help to maintain an ideal body weight, improve joint range of motion, and increase muscle strength and tone. This will result in joint stabilization and increased overall comfort.

- A variety of physical modalities, such as cold laser therapy, may be utilized to reduce the severity of clinical signs and reliance on medications to control pain and discomfort. Laser therapy is the painless use of light energy to generate a photochemical response in damaged or dysfunctional tissue. This will, in turn, decrease pain and inflammation while accelerating healing. This modality is non-invasive, fast, comfortable and effective.
- Manual therapies, such as stretching and massage, increase blood flow to muscles to improve comfort and healing while decreasing stiffness. Aging or poorly used muscle groups can become tight, causing joint range of motion can be compromised. Controlled and appropriate stretching promotes increased flexibility and comfort during physical activity and decreases the risk of future injury. Massage also alleviates discomfort through releasing endorphins and by increasing blood and lymphatic flow to affected areas.

Our senior pets often suffer from impaired mobility due to the presence of osteoarthritis. This can lead to a decreased quality of life due to the presence of pain and their inability to engage in physical activities that they formerly enjoyed. A formal physical rehabilitation and fitness program can ensure that our furry friends continue to maintain an active and comfortable lifestyle throughout their golden years. For further information about how rehabilitation can help your pet, please contact Blue Springs Animal Rehabilitation Center.