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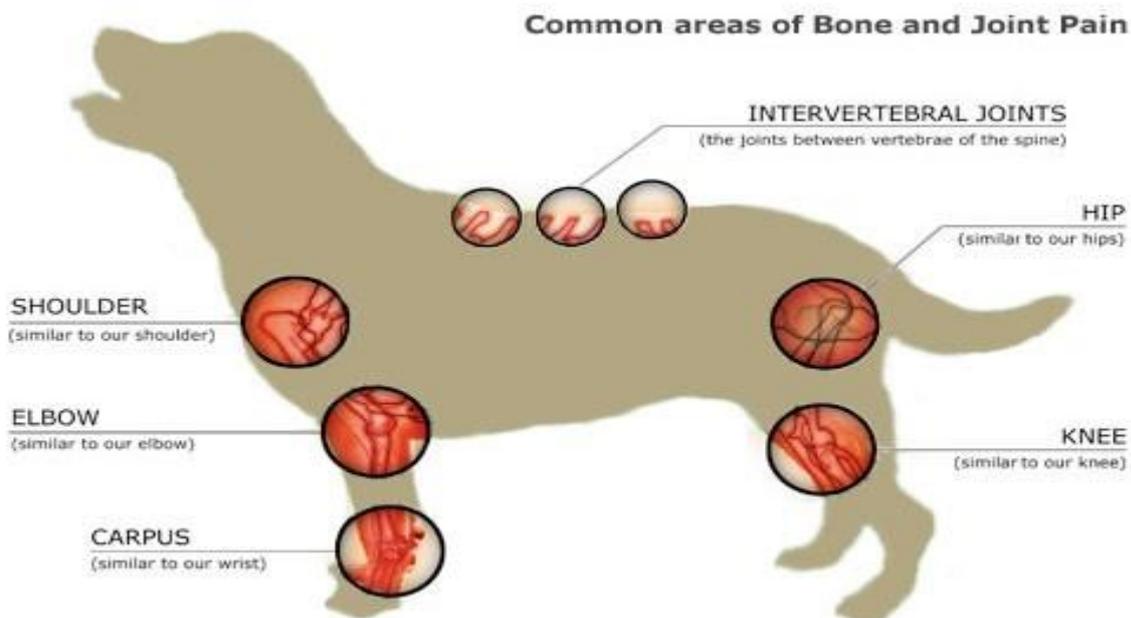
Canine Osteoarthritis Awareness – by Katalin Banyay DVM, MVS

Coming to the cooler month's, arthritis is more debilitating then during the summer.

Often, it can go unnoticed by the owner as it is a chronic condition, old age arthritis or osteoarthritis affects more dogs then we would like to admit. Many times I hear in the consult "he/she is not in pain, he/she is not yelping". Osteoarthritis causes chronic pain which is different in manifestation to acute pain and is a progressive process.

Arthritis is an inflammation of one or more joints. The most common types of arthritis are osteoarthritis and rheumatoid arthritis. Osteoarthritis causes cartilage, the hard, slippery tissue that covers the ends of bones where they form a joint, to break down. Rheumatoid arthritis is an autoimmune disorder that first targets the lining of joints (synovium).

First signs of discomfort due to arthritis are just reduction in range of normal activity, pretty much just doing less. The dog is not getting up easily from the lying down position because it is painful to jump up. He doesn't want to fetch the ball anymore because the movements involved in the activity would hurt. He is slower on his walks and sometimes lags behind because pain slows him down. He is grumpy, interacts less because he is suffering.



Arthritis doesn't discriminate – it affects people and dogs of all ages and sizes although osteoarthritis seems to be more common in the elderly. Arthritis is a slow process which can't be stopped, but its progression can be slowed down and managed with medication. Initially it would cause subtle changes in your dog's walk, discomfort with joint movement or occasional limping. As it advances it becomes more and more noticeable, progressing to overt lameness, holding the limb up or holding the limb funny.

If you notice with your dog any of the following:

1. Isn't as enthusiastic to fetch or play?
2. Prefers lying down to standing?
3. Has trouble standing up or jumping?
4. Limpes occasionally?
5. Has difficulty with toileting?
6. Shows signs of aggression?
7. Rests in abnormal positions?
8. Shows reluctance to run?
9. Takes shorter strides when walking?
10. Cries when touched or avoids patting?

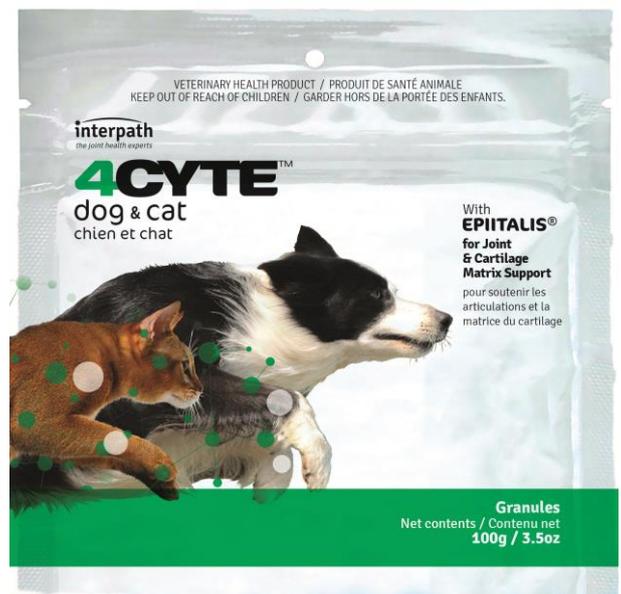
We recommend you mention it to your vet and get your dog checked out.

There are pain management options available for your dog which will greatly impact on the condition and improve the overall quality of life. There are so many joint supplements and medications on the market that we would advise you to talk to your vet to assure that you are spending your money in the right direction.

4CYTE for Dogs

4CYTE is a natural product with strong supportive trial data that will keep your dog sound and pain free. With the active Epiitalis and supported with green lipped mussel and abalone (Paua) the active Epiitalis has proven to proliferate in the cells of the synovial membrane. This is important as the synovial membrane protects the synovial fluid of the joint, the cartilage and improves overall joint health.

By keeping the synovial membrane intact, the synovial fluid cannot leak into the body and the blood pollution (from the body) cannot enter the joint. We do not want the blood pollution entering the joint as this adds to the joint deterioration as it destroys the cartilage over time. 4CYTE is unique in the way it works. Many users including humans (with our human product), horses (with our Epiitalis Gel) and dogs (4CYTE canine) have had outstanding results. Weekly we get success stories from our patients.



You too can help your dog refrain from pain and improve joint mobility and lameness on 4CYTE canine. Come and see us in the clinic so we can assess your dog today and discuss further the benefits of 4CYTE canine for your dog.

Top 10 obesity-related pet conditions

These cat and dog conditions accounted for more than 1.3 million of Nationwide pet insurance claims in 2016, a 23 percent increase from three years before.



DVM360 MAGAZINE

Obesity seems to continue to grow in veterinary practices (no pun intended). Nationwide reported an uptick in pet insurance claims for obesity-related conditions in 2016. More than 1.3 million claims for more than \$60 million amounted to a 23 percent growth over three years. The chart below show the top 10 obesity-related conditions that accounted for those claims.



Dogs

Top 10 obesity-related conditions
(as measured in Nationwide pet
insurance claims)

1. Osteoarthritis
2. Cystitis/Urinary tract disease
3. Hypothyroidism
4. Hepatitis/Hepatopathy
5. Cruciate ligament injuries
6. Diabetes
7. Intervertebral disc disease
8. Chronic renal disease
9. Congestive heart failure
10. Lipomas



Cats

Top 10 obesity-related conditions
(as measured in Nationwide pet
insurance claims)

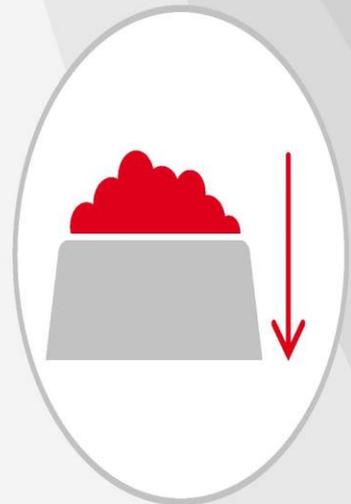
1. Cystitis/Urinary tract disease
2. Chronic renal disease
3. Diabetes
4. Asthma
5. Hepatitis/Hepatopathy
6. Osteoarthritis
7. Hypertension
8. Congestive heart failure
9. Gall bladder disorder
10. Spondylosis



Less active



Urinating more

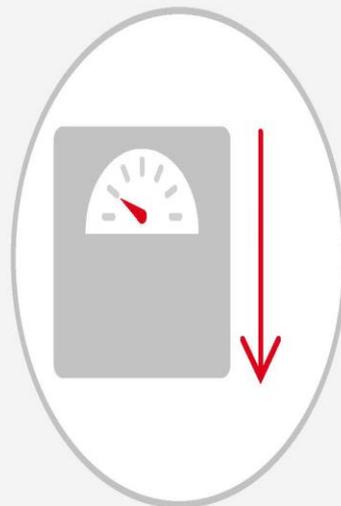


Loss of appetite

**SIGNS OF
KIDNEY DISEASE
IN PETS**



Drinking more



Weight loss

FELINE HISTORY AND DOMESTICATION

The modern-day housecat is a relatively new species that started to become domesticated about 10,000 years ago. The dog, in comparison, has been living in close association with humans almost three times longer, having become domesticated around 30,000 years ago.



Housecats (*Felis catus*) are believed to have evolved from the Middle Eastern Wildcat (*Felis sylvestris*). It is now commonly believed that the cat actually domesticated itself, finding a ready source of food (rodents) around the early agricultural settlements.

Early farmers, who began to store grain after harvests, likely saw the utility of having these astute hunters around to control the vermin population and, thus, a beautiful symbiotic relationship was born. The more friendly and tame felines were encouraged by farmers to hang around the settlements, and, through the process of natural selection, cats became more comfortable with humans, eventually finding their way into people's homes and hearts.

Recent studies of the genetic composition of the modern-day housecat and its wildcat ancestor show that housecats have changed very little during the process of domestication. Perhaps this is so because humans used cats for their natural talent in rodent control and did not apply artificial selection pressure (or selective breeding) to change the genetics of the housecat. It was not until the 19th century that cat fanciers began selecting cats for particular traits, which has led to the 70 or so breeds of domestic cat that we have today.

BEHAVIOR

Given that their genes have changed little from their wildcat ancestors, it is no wonder the domestic cat has retained most of the behaviors and mannerisms of its close wild relatives. Today's housecat has kept so much of its natural instincts and abilities that it can survive in the wild and hunt for its own food. Indeed, domestic cats signal and communicate with tail movements, postures, ear movements, etc., in almost identical ways to wildcats. Their ability to stalk, hunt, and take down prey also closely mimics their wildcat ancestors.

Like their wild counterparts, cats are primarily solitary hunters and are not pack animals. They are also both predators and prey. The cat's close genetic link with its forbearers can explain its reaction to pain and injury as well. Just like wildcats, when injured or in pain, a domestic cat is not likely to vocalize and draw attention to itself, but instead seeks a place to hide and stay quiet to avoid attracting unwanted attention from predators.



COMMON FELINE MUSCULOSKELETAL (MS) DISORDERS

Musculoskeletal (MS) disorders are conditions that affect the bones, joints, tendons, ligaments, and muscles of the cat. Primary diseases of the bone in cats are rare. However, joint disorders are fairly common. The most common musculoskeletal disorder in cats is, by far, degenerative joint disease (DJD), also known as

osteoarthritis or feline arthritis. One of the first studies into how common DJD is in cats was performed at NC State more than 15 years ago, and this study found that 90% of cats over 12 years of age had evidence of

arthritis on x-rays (1). A more recent study by Lascelles and the team at NC State found that just over 90% of all cats have radiographic evidence of degenerative joint disease somewhere in the body (2). Other musculoskeletal disorders seen in cats include dysplasia of the hip, elbow, or shoulder; knee (patella) luxation; cruciate ligament disease; and tendon contracture.

DJD involves deterioration of all the components of the joint. This deterioration (of cartilage and the underlying supporting bone) results in inflammation and pain. In cats, the pain is most common in the hips, knees, hocks (ankles), lower back, and elbows. The condition is chronic and, with time, the pain may be so debilitating as to lead to a poor quality of life for the cat. Importantly, with time, pain that is not controlled can lead to changes in the pain-sensing system, resulting in a neuropathic type of pain in these cats.

DIAGNOSING MUSCULOSKELETAL DISEASE AND PAIN

Like their wild ancestors, domestic cats are very good at hiding their pain. This, coupled with their typical lack of cooperation during a physical and orthopedic exam, can make diagnosing the pain and finding its source very difficult, even for the most experienced veterinarians. X-rays (radiography) can help diagnose a musculoskeletal condition; however, the source of the pain must first be localized. Therefore, a thorough history, including the owner's assessment of changes in the cat's behaviour and activities, is essential for a diagnosis of musculoskeletal disorders and pain in the cat.

Changes in the cat's daily habits that might indicate the cat is in pain include hiding, decreased grooming or excessive licking of a painful area, increased aggression when handled or agitation toward another pet, and avoidance of using the litter box (house-soiling). In addition, the cat's mobility and activity level may be affected by the musculoskeletal condition and associated pain. Caregivers, therefore, may see a decrease in the cat's willingness to jump up or down on obstacles, difficulty going up or down stairs, stiffness, less activity, an increase in time spent sleeping, and reluctance to play.

"It is now accepted that the most accurate method for evaluating pain in animals is not by physiological parameters but by observations of behavior." —2015 AAHA/AAFP Pain Management Guidelines for Dogs and Cats.

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