



RECOGNIZING PAIN IN CATS & DOGS

My dog has trouble getting into the car; my cat can't jump onto her favorite windowsill anymore; Fluffy is licking at her wrist all the time. All of these things can be signs that your pet is in pain.

What is pain? According to *Saunders Comprehensive Veterinary Dictionary*: **pain** a feeling of distress, suffering or agony, caused by stimulation of specialized nerve endings. Its purpose is chiefly protective; it acts as a warning that tissues are being damaged and induces the sufferer to remove or withdraw from the source.

Pain is a protective mechanism of the body, it is meant to be beneficial. If something hurts, you don't use it - you protect it from further damage. But, how do you judge when pain is beneficial and when it is causing too much discomfort? How do you know when animals are in pain?

Pain has three classifications: Acute pain has a sudden onset; such as trauma. Chronic pain is constant. Some days are better than others, but it's never gone. This would include hip or elbow dysplasia, and other arthritic conditions. Transient pain could be from an old injury, or other gastrointestinal problems. The dilemma in working with animals in pain has always been how to reduce the discomfort without causing overuse of an injury site. Assessing the amount of pain an animal feels is key in treatment. Animals are genetically programmed not to display pain. The weaker animal will lose its place in the pecking order of the group or may be subject to attack.

Acute pain is the easiest to detect - the pet is limping, has a gaping wound, an altered stance or refuses to stand. The change is immediately recognizable. Chronic or transient pain is harder to assess. There may be only subtle changes in the animal. Has the dog become more temperamental or sullen recently? Have their eating or drinking habits changed? Has their athletic performance changed - such as not wanting to play or refusing to jump or take stairs? A dog that stops lying down may be having trouble getting up - indicating arthritic joint issues, sometimes they prefer to lean on the wall. Will the dog only lie down in a place that has carpet? He may be having trouble getting up especially on slippery surfaces like tile floors. Dog and cats are very good at compensating for a leg injury by modifying their way of going to put more weight on the other three good legs.

Pain perception varies with the individual animal. Just as in people, some animals have a higher level of pain tolerance than others. What one pet shows on the surface another may take in stride. Blood tests can indicate an increase in cortisol which is a hormone produced during stress, but stress may not be a factor in chronic pain. The person that knows the pet's personality is in the best position to judge subtle changes in behavior. Once you decide that there is a problem, a veterinarian should be consulted to identify the underlying cause of the pain and devise a plan as to how to treat it.



Acute pain is most often controlled by the use of very potent drugs like opioids, available only through a veterinarian. These drugs are administered via injection or transdermally (through the skin) by using a patch. These drugs are controlled substances and require extra supervision by the veterinarian. More common non-steroidal anti-inflammatories (NSAIDs) such as Rimadyl and Duramax can be obtained by a dog owner with a prescription. These types of drugs are less available for cats. Ketofen and Metacam are two drugs available for cats. These drugs help reduce inflammation as well as provide analgesia (pain relief). Nothing is without risk; all drugs can have side effects. With long term use, NSAIDs can cause damage to the gastrointestinal system and the kidneys. Prostaglandins are chemical substances produced by the body. Some of these are responsible for initiating the inflammatory process; others are used to protect the linings of organs. NSAIDs can indiscriminately block the production of these prostaglandins. When production of the substances that protect the lining of the stomach and intestines are reduced it can lead to GI upset and ulcers. Drug therapies need to be carefully monitored and discussed with a veterinarian.

One of the most common sources of chronic pain in dog and cats is from degenerative joint disease, more commonly called arthritis. The ends of the bones that form joints are covered with a hard, glassy covering called hyaline cartilage. This cartilage acts like a Teflon coating to protect the underlying bone from wear and tear. Cartilage has no nerve endings, so as long as it is in tact, there should be no pain from cartilage on cartilage contact. Due to trauma, joint deformities (crooked legs) or just long term repeated activities, the cartilage can become damaged and torn or chipped away. Once the cartilage is no longer protecting the bone endings, there will be bone on bone contact. Bone, which does have nerve endings, becomes painful and inflammation sets in. Arthritis can be diagnosed through physical examination and radiographs (x-rays).

Pet owners should be aware of alternatives to traditional drug therapies Methylsulfonmethane (MSM) is a natural form of dietary sulfur. MSM, when fed, can provide the body with nutritional sulfur it may be lacking. Sulfur helps make the body's cell walls more permeable and allows more nutrients and oxygen to flow in. Dietary sulfur is needed to synthesize collagen. Collagen is a protein that is necessary for maintaining skin, connective tissue and bones. Having adequate amounts of dietary sulfur available in the diet can increase strength and flexibility of the tissues.

Nutriceuticals are not considered drugs, but dietary supplements. These are things like chondroitin sulfates, glucosamines, vitamins, and herbal products. Some of the common trade names include Cosequin, Glyco-Flex, and Synovi Cre. A recent search of an on-line pet supply company yielded 52 products under the category of joint supplements. With the exception of Cosequin, little research has been done to prove the effectiveness of these products. The pet owner is on their own to choose among the variety of products that exist. Most of these products have gained popularity by anecdotal evidence and word of mouth.



Homeopathy and herbal products have been used for more than 150 years to treat medical conditions in people. Recently these products have been used to treat similar conditions in animals. If you are buying products from an herbalist or homeopath, be sure that they have a background in treating animals. Some common herbs that can be readily used by humans can be toxic to animals; an herbalist not familiar with animal physiology could inadvertently poison your animal.

Acupuncture and acupressure (acupressure is applying fingertip pressure to Acupoints rather than inserting a needle) can be used to treat pain. Acupuncture/pressure is an ancient form of medicine developed in China. It involves inserting thin needles or applying pressure to specific points on the body. Each point lies on a meridian or pathway where energy flows through the body. Energy can become blocked along these pathways causing discomfort or disease. Acupuncture/pressure restores the flow of energy bringing the body back into balanced state. Acupuncture/pressure causes the release of endorphins, the body's natural pain fighting chemicals; blocks the transmission of pain signals to the brain; and deactivates trigger points. Trigger points are painful areas that develop in muscles and connective tissue in the body.

Chiropractic and massage are two other modalities that can ease pain. These two forms of bodywork compliment each other to help ease pain. Chiropractors help to restore normal bone alignment and joint motion. When bones are out of alignment, especially the bones of the spine, they can compress nerves which can lead to pain and disuse of an area. When pain becomes an issue, muscles in the area contract to protect the area from further harm. Massage can relax the tightness and release trigger points associated with pain. Over time, lameness in one area becomes a whole body issue. If the animal is lame (sore) on the right hind; the first thing they do is put more weight on the opposite front. In this case the left front. Dogs and cats already carry about 60% of their weight on the front legs. The extra weight on the opposite front will eventually make that leg sore, the torque from the uneven weight distribution will then make the back sore... Eventually the whole body is involved and muscles are stressed. Massage can help to relax the muscles and restore motion to the joints.

As you can see, the pet owner has many avenues to choose from when it comes to pain relief. Once the problem has been recognized and diagnosed there are many avenues that can be explored to provide comfort to the animal.