

## Stretching

Stretching is an important part of a dog's physical well-being. For many dogs, whether due to advanced age, injury, or surgery, concerns such as muscle atrophy, joint degeneration, loss of flexibility, and subsequent pain are very common. Stretching can help address these concerns by helping keep a dog fit, flexible, and feeling great.

It is important to observe and have an assessment to determine what stretching activities are appropriate for your dog. A well-functioning dog may easily retain his natural elasticity and suppleness. However, a dog with restricted mobility may have short and stiff muscles. When a dog has shortened musculature or tonicity pressure is exerted on the joints, leading to decreased mobility. This affects the blood vessels and impairs blood circulation. Muscles, joints, tendons, and ligaments then receive insufficient nutrition and less oxygen. Reduced blood flow also means that lactic acid accumulated in the muscles is not naturally removed from the body. The lactic acid builds up along with other waste products, leading to irritation of the pain receptors in the muscles. This causes the dog to experience pain. Pain can cause further tension, which reduces blood flow even more. This cycle can continue and cause further persistent problems and lead to chronic pain.

Done in conjunction with massage therapy, stretching is an effective way to prevent muscle-related problems and strain injuries and can help improve the dog's quality of life. Stretching and massage can complement daily exercise and obedience training, and proper diet and can help build a strong bond between dog and owner. Stretching before activity (to warm up) and after the fact (to cool down) has a preventative effect. Before stretching is performed, it is important to have the muscles warmed either through activity or massage.

## Range of Motion Exercises

Range of motion (ROM) exercises are used to prevent weakening of the muscles and muscle atrophy after an injury or surgery. ROM exercises can increase blood flow to the joint cartilage, stimulate new cartilage production, and improve overall range of motion at the joint. These exercises are performed to help maintain or improve joint mobility and flexibility of muscles, tendons, and ligaments, and to help enhance awareness of neuromuscular structure and function. These exercises also help to manipulate all the muscles and prevent the joints from stiffening.

There are several types of range of motion exercises and it is important to discuss them with a veterinary rehabilitation professional to design a routine tailored to your dog.