

What is physical rehabilitation for senior animals?

What can physical rehabilitation do for senior animals? There are several things that this can assist with. As animals become older this triggers changes in a wide range of tissues. These changes can be seen in muscle physiology, hair coat and skin, weight, cognitive function, hearing, and vision. Treatments are important to accomplish increased muscle strength and joint function, maintain an acceptable quality of life, control pain and discomfort, slow the progression of disease, and promote repair of damaged tissue when possible. (Millis, Levine, 2014, pg.635). According to the feedback from the owner and the regular evaluations performed, the plan of treatment may need to be changed for future visits.

How does acupuncture and osteopath fit in?

How does osteopathic articular balance (OAB) and acupuncture work with physical rehabilitation for senior animals? There are many different facets to physical rehabilitation. Sometimes it may include: water therapy, laser therapy, acupuncture, reiki, osteopath, functional technique, etc. Senior animals need to have low impact activities due to arthritis, pain, or stiffness to be able to properly move. Acupuncture and osteopathic articular balance (OAB) are both low impact and senior animals aren't required to move much but the muscles and joints are still worked on. Senior animals love the ability to just be

able to lay on a blanket or bed and be able to just relax and sometimes even fall asleep during the session.

What exactly is osteopathic articular balancing (OAB)? “It is used to both assess and treat problems in the body. It does this by moving every tissue in the body through its full range of motion. After all, proper motion is essential for proper health. “This passive motion creates proprioceptive change in the nervous system, leading to a balancing of the body as a whole”(Bates. C, 2022). “Osteopathy is an essential treatment as it treats the condition causing the pain. This is much better than taking painkillers.” (BMC Family Practice, 2011 Jun 13). “Acupuncture osteopathy has been defined by Mark Seems as: the release of myofascial and musculoskeletal obstruction to restore normal flow through acupuncture needling.” (Schoen. A, 2001). With combining osteopathy, acupuncture together with physical rehabilitation for senior animals the chances of a quicker, stronger recovery increases. “Dry-needling, or modern acupuncture, is a useful adjunct to osteopathic treatment as it helps to reduce muscular spasm and tension by addressing the ‘trigger points’ (hypersensitive, knotting, tight points) in the muscle” (Essential Osteopathy, 2023). Acupuncture works with the energy sphere where the osteopath works the physical plane known as the “somatic”. An osteopath or acupuncturist will refer a senior animal between them to obtain a more beneficial ending result.

Benefits of acupuncture and osteopath-

Whether it be senior animals or animals in general having to get surgery, or recovering from an injury that receives physical therapy that incorporates acupuncture and osteopathy will go home soon and have a quicker, smoother recovery than those that don't. These animals will be able to leave the hospital several days before those that don't receive this. The increased blood flow and working with the entire body helps to remove the toxins present and encourage fresh oxygenated blood to help with the healing.

When it comes to pain management, veterinary acupuncture is one of the most commonly used forms of alternative treatment for pain relief. (Physio Vet 2023, 17th October 2023).

Acupuncture involves placing fine needles into certain points of the body where nerve bundles and blood vessels intersect. The points where the needles are placed help control the energy going through the animal. When they become blocked there is belief that it can lead to illness and pain. Acupuncture works to restore balance and stimulate the body's natural healing abilities, as well as promote both physical and mental well-being. According to Physio Vet 2023 the needles in the skin help relax muscles, improve blood circulation and reduce inflammation so that injuries can heal quicker. This is especially useful for pets who are suffering from chronic illness, arthritis, hip dysplasia, dermatitis, or cancer.(Physio Vet 2023, 17th October 2023)

The deeper the needle is in the animal the more dramatic the effect is of the acupuncture. When the needle is placed a local reaction occurs which results in an increased blood flow to the area and a local response that helps to relieve the pain and reduce inflammation and edema. The connective tissue is stretched when the needle is placed at an acupoint causing in turn the muscle and tissues of the local area to relax.

Osteopathy has been assumed to be similar to chiropractic care. When it actually is a whole body approach that considers fascia, viscera, vascular and the lymphatic flow, it doesn't just focus on the spine and joints alone.

Osteopathy alleviates pain, restores freedom of movement and enhances the body's innate healing abilities (Taylor. L, DVM, June 4, 2018). Osteopathy has helped to answer so many different musculoskeletal conditions and has the ability to resolve mobility issues in animals. Some conditions that osteopathy and acupuncture can help to treat include lameness, back or neck pain, arthritis, ACL injuries/ tears, IVDD, muscle strains, urinary incontinence, lick granulomas, and the more common mobility issues (stiffness, weakness of the front or hind end, reduced normal physical activities).

Athletic animals that received acupuncture/osteopathy have seen their performance improve and injuries are reduced due to the body being able to move freely.

With osteopathy there is visceral manipulation, joint manipulation, craniosacral therapy. Each one does something slightly different to help release or shift the tension in the animal's body. First, visceral manipulation (visceral osteopathy) includes the ligaments that hold organs or other internal structures. When these ligaments experience trauma, surgery or a form of inflammation they become excessively tight causing an adhesion. When an adhesion is formed the tissue is no longer able to glide normally with surrounding tissue. This new tension causes the nerve flow going to the spine to become reduced due to rotation and reduced mobility in the sacrum and can sometimes involve multiple vertebrae to become fixated. With osteopathy when the fascia becomes released the restricted vertebrae automatically become free and are able to return to normal movement. The other issues that tension in the ligaments can cause is organ dysfunction which can influence the autonomic nerve flow to the spine. When released the organ is able to return to normal function

and this is also reflected in range of motion to the affected area. According to Laura Taylor DVM, the goal of visceral manipulation is to release excessive tension around any organ, thus improving mobility, nerve function and blood/lymph flow to the area. The techniques include direct, gentle mobilization and more passive "listen and follow" fascial releases. (Taylor. L, DVM, June 4, 2018). At least 50% of restrictions originate from organ issues

that are too tightly attached or just not working at full capacity. These restrictions often are associated with the spine, pelvis or shoulders.

Joint manipulation use in osteopathy is to adjust/manipulate help with restoring normal range of motion to a joint. Benefits of this include restoring local circulation, decreasing pain either local or referred and releasing local adhesions in the joint or associated with the joint. There are two different techniques that can be used. First is the direct technique requires moving in the direction of the barrier/stuck-ness and moving slow long or short lever manipulations. Second technique is indirect technique or functional technique working away from the restricted area finding a place of ease. This technique requires the osteopathy to listen to where the tissues want to go and slowly follow the tissues direction. According to Laura Taylor DVM it's understanding the tissues in a three dimensional way and working through the unique unwinding movements until there is a complete release of the entire joining, including the surrounding soft tissues (Taylor. L, DVM, June 4, 2018).

Craniosacral therapy reduces mechanical tensions of the central nervous system but addresses strain patterns throughout the body, including thoracic, abdominal cavities, ligaments and joints. When animals slip, fall, or are feeling good and play too hard, increased tension of the internal fascial tissue and the respiratory diaphragm can be released through craniosacral therapy. This method requires an indirect light touch that encourages the body to

self-correct and release the abnormal tension. The younger the animal is, the loss of symmetrical freedom and mobility in the hind end is not noticed. But as the animal ages it becomes more difficult for them to adapt until they are no longer able to. The routine spay/castration surgeries cause sacro-iliac fixation causing a reduction of normal motion that later becomes a mobility problem. Now knowing this would it be considered to have your animal get acupuncture/osteopathy a short time after being spayed/castrated? Treating an adhesion from spaying/castrating help normalize the sacro-iliac movement could potentially prevent an ACL (CCL) injury/tear. This common procedure can sometimes even be linked to front end lameness and is often a difficult issue to treat. To be able to fix a spay/castration adhesion takes anywhere from one to three treatments a week or more apart from each other to permanently resolve the adhesion. Would you consider having your young or senior animal to get physical rehabilitation including acupuncture or osteopathy after getting spayed/castrated? Looking at the entire animal as a whole is very important as an acupuncturist/osteopathy.

When an animal gets an ACL (CCL) injury/tear which is approximately 30% or more of patients according to Laura Taylor, DVM. it is 100% of the time correlated to a sacro-iliac restriction from an earlier spay/castration surgery. This is caused by a subtle loss of motion early in the sacro-iliac becoming restricted. If after the first ACL (CCL) surgery has been performed and the

other knee is checked during physical rehabilitation there is the chance for repairing the laxity present and restoring normal motion. This injury is preventable with early osteopathy treatments being able to reverse laxity in the ligament. Restoring stability to the joint and sacro-iliac motion while addressing the laxity can help prevent an animal with a previous ACL injury from having another. Physical therapy, acupuncture, and osteopathy used on animals that might be prone to ACL injuries by starting early with treatment of adhesion of the spay/castration sites and returning to normal the biomechanics of the limbs. Getting animals spayed/castrated is very important but so is the care after the procedure is complete. Front end lameness can also be seen in this procedure that is not often associated with spay/castration. It might not be noticed the next day but could take months or even years before it's seen. Treating the sacro-iliac adhesion and then working on freeing up the shoulders can often fix the problem with a few sessions. The animal then doesn't have to be on pain meds for the rest of its life possibly because of an adhesion that formed years earlier. For an osteopathy it can be empowering getting to the root of a mobility issue and being able to see long-lasting results in just a few treatments. Sometimes being able to lead to a permanent cure of lameness or muscle pain.

Healing time with versus without-

The time of healing for an animal that receives physical rehabilitation with acupuncture and osteopathy will have a shorter recovery time with reduced pain overall. These animals are able to return to normal everyday activities one to two months sooner than the animals that do not receive the same physical rehabilitation. Using the multiple modalities of physical rehabilitation can be beneficial for the animals recovery rate. According to a study of 40 dogs with CCL disease, half of the dogs were assigned to receive acupuncture and TCVM therapy whereas the other half received conservative therapy with pain management, joint supplements and exercise therapy. Both groups of dogs showed improvements by week 24 but those treated with acupuncture attained quicker results.(Ciolanescu B. 2020;15:23–34). Reduced healing time for an animal whether it be from a surgery or a current injury is always desired by the owner. Being able to have the animal return back to normal life should be the primary goal of physical rehabilitation no matter what modalities are being used.

Ways I've seen multiple modalities of physical rehabilitation work -Chance's story-

Upon initial evaluation of a 7-year-old long-haired miniature Dachshund, castrated male that presented with hind limbs not working. The owner had noticed three weeks prior to him just sitting at the base of a bush in

the yard. When he was called he was unable to get up or move the hind limbs and would cry out in pain. It started out that for a short period of time the hind limbs wouldn't work then they would start again and this continued for approximately three weeks until they finally stopped working all together. There were no known injuries or falls prior to the final on-set. Radiographs were taken during the initial visit with the referring veterinarian showing potential for IVDD, with decreased intervertebral space between the T-11 and L-1 spaces with paraparesis present. The owner started immediately taking him to acupuncture and laser therapy appointments. 3 weeks later it was noted that the therapies had been slightly helping and small changes of improvement noted. He was able to stand with support for approximately ten to fifteen seconds before the hind legs would give out. It was discussed with the owner and acupuncturist to consider adding osteopath sessions to the treatment plan. First session after evaluation there were immediate signs of relaxation and releases of tension throughout the session. Osteopathic articular balance was performed once weekly on different days than the acupuncture and laser therapy to be sure the muscles were not getting overworked and possibly reversing any progress being made. When he was checked in on the following day the owner reported that he had slept well through the night versus prior nights of having been very restless. Owner noticed after the first session that before the session his feet were cold to the touch and afterward they were

warm and he was attempting to pull the hind limbs under his body and attempting to stand with help. Four days later a second session was performed with the owner reporting that he was moving his hind limbs under his body on a regular basis. The overall attitude had improved dramatically. Adjustments were again made using functional technique and osteopathic articular balance to again see relaxation and tension being released from the body. He was seen weekly for four sessions with improvement being seen each session. This same canine today is currently receiving acupuncture and osteopathy for maintenance of overall physical care. He is currently able to walk, run, and play with other dogs in the home. In the beginning the owner was informed that there was a strong chance that their dog would never be able to walk again and would require a cart to move around freely. If he ever did walk it would take at least six months if not longer. With the physical rehabilitation modalities that were used he was able to walk on his own in three and a half to four months. Personally, having received the opportunity to work on an older canine diagnosed with IVDD and also working on a younger athletic canine and getting to see the difference with just one session the day of the session while checking in 2 days later and hearing that the canine was still doing well and the treatment had made a difference. Both owners were amazing to learn the different areas of the body that the canine's were not moving freely, to then be able to see the different way the body was able to move after the treatment. The

athletic canine who performed during an Extreme Air-dog show was able to jump further than ever before, increasing the distance by 1.5 feet. This created the further distance to be jumped for Extreme Air-dog.

My thoughts/reasons

Having received the opportunity to work on a number of different dogs and horses during my courses of osteopathic articular balance through the London College of Animal Osteopathy. I have personally learned and seen the benefits of animals going through physical rehabilitation with acupuncture and osteopathy. The benefits of being able to see the animal relax under my hands while quietly continuing to work is an experience and feeling that can not be forgotten. Seeing animals come in with a look of discomfort and pain then after less than ten to fifteen minutes they are truly relaxed and being able to allow the owner to have the same experience of finally seeing their best friend/pet be pain free for the first time in who knows how long. Allowing the owners to be involved in the physical rehabilitation, acupuncture, or osteopathy treatment sessions helps the bond between owner and animal become stronger. This also helps the owner know what kind of things to do between sessions. The owner feels like they are part of the treatments and is a crucial part of the therapy.

With these modalities animals are able to eat, drink, move, or sleep in comfort throughout the night. This is something that is truly amazing to be able to be a part of.

I strongly believe that physical rehabilitation, acupuncture, osteopathy and other modalities can all work hand in hand to be able to offer animals the chance to be pain free while not having to be given medications. This is something that should be offered through/to veterinary clinics as a way of reducing pain at the core and having the opportunity/chance to be able to reduce stress and fear in a clinic setting. Both acupuncture and osteopathy can be used to reduce stress, fear, anxiety while still yet giving something kind back to the animal.

When physical rehabilitation is suggested by a veterinarian for an animal it is normally for an injury or post-surgery recovery. If physical rehabilitation is used alone, the pet may need to have multiple sessions for an undetermined length of time due to how the pet responds to the rehabilitation. If combined with other modalities the healing time is increased and the pain and discomfort between sessions has been decreased. This offers the owner under veterinary direction to be able to decrease the amount of pain medication that might need to be used to control the pain/discomfort.

Physical rehabilitation combined with other rehabilitation modalities is important for both young and older animals. Working together on mobility,

reducing arthritis build-up, preventing injuries on working or athletic animals, improving balance, etc can be accomplished with one or multiple physical rehabilitation modalities.

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[10.3390/vetsci9060252](https://doi.org/10.3390/vetsci9060252)

PMCID: PMC9227989 PMID: [35737304](https://pubmed.ncbi.nlm.nih.gov/35737304/)