

Evolution of Massage Therapy and Devices from Human to Canine



COURTESY OF PETWELL

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For centuries massage therapy has been utilized to alleviate discomfort, stress, and tension within the body.

Stresses due to repetitive activities can cause restrictions and tightness on the joints and surrounding soft tissues. Performance and overall joint health can be affected by such stressors.

The Muscle-Pain Cycle

In particular, when a muscle is injured or stressed, the first response is to tighten. If this process is not interrupted, the muscle fibers will develop into a chronic contraction or knot. If this tight, focal muscle contraction is not relieved quickly, it will begin to form adhesions to the surrounding tissue/fascia and decrease its ability to move freely.

This deficiency of movement also negatively affects circulation to the muscle tissue, not allowing needed nutrients in or waste products out. These changes can irritate the nerve endings leading to a higher incidence of pain.

The body answers to the pain with even more muscular tension, and the muscle-pain cycle continues. Unfortunately, the debilitated function of one muscle can have a nega-

tive effect on the rest of the body. For normal body movement to occur, one muscle or group of muscles must shorten while the opposite muscle or muscle group must lengthen. If a muscle is constantly contracted, knotted, or under stress, then the opposing muscle must work much harder to create movement due to the antagonistic tension.

Furthermore, areas of injury, trauma, or pain usually result in the dog modifying their stance or gait. In this case, the adjacent muscles and support structures must counterbalance and offset the increased load. These compensating muscles were not designed to sustain the increased strain, which brings us full circle to even more tension and, ultimately, discomfort in these muscles as well.

Pain, almost always, eventually results in reduced activity, which furthermore impedes proper circulation, leading to loss of optimal function, which will continue into additional contention to movement. Massage, in multiple forms, seeks to interrupt this cycle by relieving muscle tension, therefore aiding in improved circulation and reducing pain.

A balanced therapeutic or sports conditioning program is often complemented with at-home massage for a personalized treatment and injury prevention approach. Massage utilizes manual movement and application of various pressures to musculoskeletal soft tissue structures to generate different physiological effects. Such effects include relaxation by reduction of sympathetic



(stress) muscle tone, improvement of joint range of motion, loosening/prevention of scar tissue formation, improvement of discomfort, proper immune function support, and enhanced circulation of blood and lymphatic fluid.

In general, massage improves blood flow through the manual movement of the muscle. This manual movement of the muscle tissue brings along a by-product of heat, which also helps to dilate blood vessels and accelerate blood flow. In addition, massaged muscles become more relaxed, therefore reducing blood vessel restriction and allowing normal blood flow to resume and supply the muscles with essential nutrients and oxygen.

Along with increased blood flow comes increased lymphatic flow, and these two functions help to decrease metabolic toxins and waste products (lactic acid), which naturally build

up from muscle work. Typically, stressed muscles, either secondary from daily work/training or post-injury, do not function properly and therefore, alone, cannot provide the natural mechanical pumping needed to sustain the lymphatic and venous blood flow necessary in the removal of waste products and metabolic toxins. These essential actions of nutrient delivery and waste removal support the daily process of muscle healing leading to optimal performance. Massage is a vital tool in supporting these essential actions.

Additional benefits of massage are loosening and preventing scar tissue formation, which in turn, increases and maintains normal joint range of motion and generalized flexibility, along with certain techniques that may also positively activate the nervous system and increase muscle tone.

Massage Techniques from Humans to Canines

There are a variety of massage techniques that were initially developed for humans but have been successfully brought over to the canine world. Selecting the appropriate massage technique is centered on evaluating the specific tissue/muscle group to be worked on and the ultimate goal for that tissue.

A few common techniques and their usage/applications are effleurage, petrissage/kneading, tapotement, and vibration. Such techniques are ideal warm-up and cool-down applications to incorporate into your canine athlete's routine.

Effleurage utilizes long strokes that typically glide over the surface of the muscles with the direction of the haircoat. This technique typically is performed with an open palm and gentle pressure, executing along the direction of the tissue fibers, with increasing general pressure with each passage. Effleurage is typically implemented at the beginning of a massage to calm and assess





Effleurage
of the shoulders/back



Effleurage
of the shoulders/back



Tapotement
of the thigh



Tapotement
of the thigh/glute

your dog and to prepare and heat the tissue for deeper techniques, and at the end of a massage session to assist with improving circulation, reducing local inflammation, reducing discomfort, and relieving muscle spasms.

After effleurage has warmed and softened the muscles, petrissage is typically performed. Petrissage,

performed with two hands and kneading performed with one hand, is the fundamental component to a good, therapeutic massage. This technique consists of shorter strokes with moderate pressure and is combined with gentle rolling, shifting and/or squeezing of the soft tissues. These strokes can be applied parallel, perpendicular, or diagonal to the tissue fibers. Petrissage massage techniques also increase circulation and decrease discomfort. It is also useful in increasing soft tissue extensibility and assisting with reducing tissue adhesions.

Tapotement is a quick and rhythmic tapping motion applied with the fingertips or sides of the hand. It can be used both as a relaxing or stimulating technique. Tapotement is utilized over weak, atrophied, or spasming muscles in addition to weak muscles secondary to neurological dysfunction.

Vibration is a massage method that involves pressing your palm or fingers into a muscle belly and rapidly shaking back and forth. This technique is often used on very tense muscles that have not relaxed with any of the aforementioned techniques. The swift movement of this stroke baffles the nervous system with its fast movement into not recognizing if the muscle is contracted or relaxed.

Overall, with a little knowledge and guidance, massage is an effective tool in maintaining the sporting dog. Common contradictions include not massaging over areas of infection or open wound, recent injections, unstable joints, acute injuries, areas of undiagnosed pain, acute spinal disc disease/herniation, hematoma (blood-filled area secondary to injury), or undiagnosed lumps/masses.

Awareness is key; monitoring your dog's behavioral cues before, during, and after a massage session can help bring awareness to what works for your dog and what doesn't. Additionally, it can help create a relaxing, safe massage session for both you and your dog.

Versatile Massage Tools

A certified massage therapist is an ideal avenue for maintaining your dog's physical and physiological health. However, when seeing a massage therapist regularly does not fit into your time, social distancing, or budget, what options do you have?

A few devices have made their way into the hands of dog owners, providing an alternative to traditional massage therapy.

Brush Combos

With a variety of manual options to choose from, one popular choice amongst dog owners is the grooming-massage combo. This simple device has combined the essence of brushing your dog with the therapeutic massage technique effleurage. It is a great introduction tool to

help your dog become familiar and comfortable with do-it-yourself massage.

One version comes in the form of a glove, allowing for more precision when applying pressure to specific areas. This offers traditional massage techniques at home, with the added benefit of small rubber pressure points, in the format of a brush.

A variety of standard handheld brush forms are also available. Some have pointy rubber tips that help get below the second coat in certain breeds, allowing for direct stimulation of the skin.

Others have short rubber nodules, providing a broader area of stimulation and pressure. Each type provides a slightly different approach to effleurage.

Another category of manual massage devices include rollers, a familiar device known to humankind. Rollers provide a more targeted, deep pressure myofascial massage, similar to the massage technique petrissage.

There are a few different versions available for pets, all of which provide a rolling-pin design. Rollers can assist in alleviating muscle tension and provide myofascial release if used correctly. Although this device is a great tool for deep tissue massage, one must use caution in terms of duration and pressure. In addition, there is a concern for hair entrapment, which can be frustrating and provide a negative experience for your dog.

Massage Wand

Massage wands/guns are a favorite in the human world, having made their way into the hands of millions over the past decade. They provide professional-like relief in the comfort of your home. The massage wand is an innovation in the pet world and can provide a combination of effleurage, petrissage, tapotement, and vibration techniques with one device. Unlike manual myofascial massaging tools, a massage wand/gun can specifically target a problem area providing a more automatic, streamlined solution.

Automatic massage devices use percussive therapy, which includes a combination of massage and vibration techniques. When used properly, massage wands can be an effective and safe tool for delivering rapid relief to your dog's body.

The percussive massager offers quick spurts of force into your dog's muscle tissue, thus increasing blood flow and decreasing tension within the targeted muscle, mimicking the massage technique tapotement.



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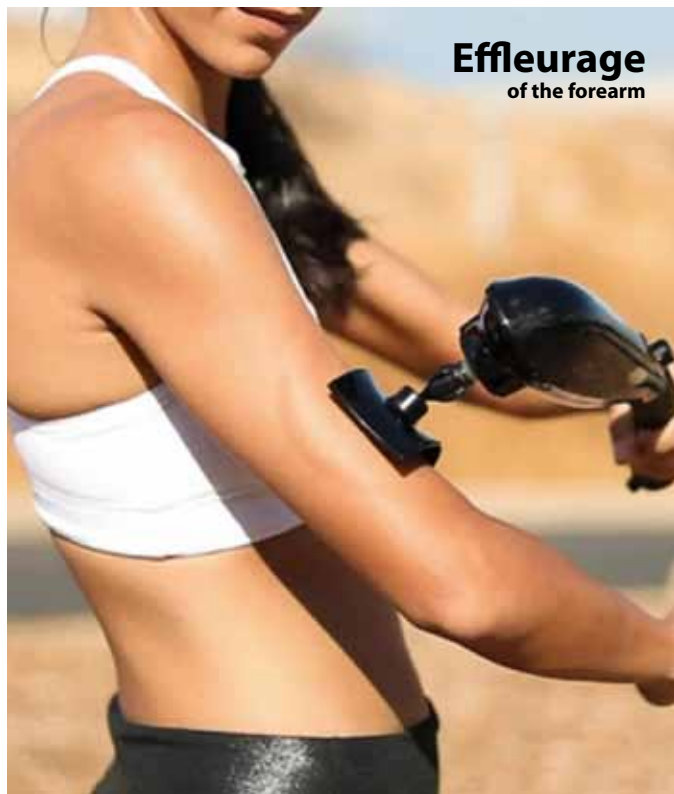


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The vibration massager can help break down tissue adhesions, which can help stretch the muscle fibers.

In 2014, a study on percussive therapy (vibration and massage) sug-

gested both methods are equally effective in preventing DOMS (delayed onset muscle soreness). Not only can percussive therapy relieve muscle tension and knots in your dog after activity, but it can also be used to warm up your dog's muscles in preparation for a trial.




Conclusion

In conclusion, there is a multitude of benefits associated with massage for our canine companions. Incorporate it into your dog's athletic routine for warm up, cool down, and recovery. Utilize massage to help increase circulation, reduce stress and anxiety, decrease tension, and support the bond between you and your dog.

Sources

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