

# Canine Myofunctional Therapy (Canine Massage)



## ***Canine Myofunctional Therapy (Canine Massage)***

### ***Introduction***

Canine Myofunctional Therapy is the use of specifically designed massages for addressing problems with dog's muscular system. Canine Myofunctional Therapy is a discipline which encourages muscular activity and helps to improve the health of the canine patient. Healthy, functioning muscles are critical to the dog's wellbeing as they facilitate movement and perform involuntary functions such as circulation, respiration and digestion. When the muscles responsible for movement are impaired the dog's movement is likely to be restricted and they may experience discomfort. CMT facilitates muscle healing and restores the dog's range of movement. In doing so, it benefits the dog's overall health, particularly by stimulating the circulatory system and positively affecting other body systems.

Canine Myofunctional Therapy (CMT) is the use of various massage procedures and techniques to the muscles and soft and connective tissues of the canine patient intended to improve or maintain the movements of the patient. Muscles are responsible for the movement of dogs for running, jumping, playing and giving the body power, strength and ability to move the procedure involves that the dog practitioner observes and palpates the dog to know about any deviations in the muscularity of the canine.

While following the examination protocol, the canine practitioner tries to look and identify any abnormal muscular tone or symmetry, capacities of tail and head carriage, various joint angles, and the ease of movement of the canine (Millis et al 2004). Palpation or the so called 'hands on' examination procedure aims to know about the asymmetry, if any in muscles and other areas. The Canine Myofunctional Therapy (CMT) has various beneficial features as well as some contraindications. In the present essay we would be discussing this therapeutic area including its impact on health, the associated mechanisms, the adverse events (if any) and the benefits of this therapy in maintaining and improving the canine health.

### ***Role of Muscles in CMT***

Improving and maintaining the muscles of the canine patient is important for the dog's overall health as musculature is known to be involved in a wide array of functions. Muscles have many important mechanisms to perform; they provide power and force for various activities like movement, having a proper posture, breathing, blood circulation and digestive activities (also including excretion). Muscle also works in accordance to the emotional state of the Dog and while emoting/expressing, facial muscles are used. Muscles are also used by

the Dog while day to day activities like barking and wagging the tail. Regulation of body temperature is another function performed by the muscles (Evans & de Lahunta 2013).

### ***The Muscular systems involved***

In order to understand the benefits and indications of CMT, first we need to understand the musculature and the related systems of the Dog. Unless we get to know this will, not be in a situation to understand the underlying pathophysiology of CMT. In the canine body basically three types of muscles perform the above mentioned activities. These three types of muscles are cardiac muscles, smooth muscles and the skeletal muscles. Cardiac muscles are involved in the functioning and mechanisms related to the heart. Smooth muscles are involved in the involuntary activities. The smooth muscles are found in the various organs including blood vessels. They are also known to be associated to various glandular activities as well as the spleen etc. (Evans & de Lahunta 2013). The third kind of muscles ie, the skeletal muscles have the crucial functions like providing the power for body movement by providing movement of the skeleton and also maintaining the body posture of the canine. These muscles are also known to provide the necessary support to the skeleton. Massage of these skeletal muscles is involved in canine myofunctional therapy.

When there is an injury to the skeletal muscles, the canine patient will feel pain and this will affect the free movement. Various ways of muscle injury are overusing the muscles, contractions, flexion, and imbalances in strength or inadequate preparation (Edge-Hughes 2007). Review by Edge-Hughes (2007) discussed the various muscular injuries and the physical diagnoses of such injuries in canine study model. The review states that diagnosis of such injuries needs palpation ability and also the skills on part of the treating healthcare provider to specifically stretch the suspected musculotendinous tissue. The author also stressed that treatments of muscular injuries should incorporate treatment modalities including specific stretches, exercises, and special advice on the return of dog to its day to day muscular activity. It was also stated that physical therapies, certain preventative treatments, and rehabilitative measures can prove to be useful in the nonsurgical management of Canine hip dysplasia patients.

### ***Health of muscles and Canine myofunctional therapy***

As per the description of the canine anatomy, muscles in the canine system are themselves connected to various joints, bones and cartilages etc. that too through tendons or aponeuroses (flat, sheet like attachment) (Evans & de Lahunta 2013). These attachments are made of very dense mesh of tissue (primarily connective tissue) having high tensile strength and

comparatively less elasticity as compared to the belly which is considered the main base for muscle contraction (Hourdebaight 2004). Whenever there is muscle injury, the muscles lose the ability to contract to the maximum and this in turn stresses the associated attachments and these results in the muscular injury. Also we need to note that the muscles are associated with multiple joints and cross many joints which are at the risk of getting strained or getting injured if they are stretched (Edge-Hughes 2007). The contracted muscles fibres trigger the inflammatory response which causes pain, swelling, along with impaired mobility (Hourdebaight 2004, Mori et al 2004). When the muscles are in contracted state, flow of blood in the contracted fibres is restricted which leads to insufficient transportation of oxygen. This in turn leads to insufficient removal of metabolic waste products to enable muscle performance (Mori et al 2004).

Canine myofunctional therapy (CMT) is a very beneficial therapeutic modality for the above mentioned muscle related problems. CMT is known to facilitate healing process of the injured muscles specifically if affects the range of movement (ROM) of the canine patient. ROM may be referred as an indicator of the degree to which the dog can extend and flex their limbs. Range of movement is affected by the conformation of dog's musculature and also the surrounding soft tissues which supports the limb (Robertson 2010). CMT is a really beneficial therapy which increases range of movement by lengthening and also separating the stretched muscle fibres, simultaneously improving the production of synovial fluid and therein lubricating the joint (MacFarlane et al 2014). CMT has been known to be beneficial in easing the stress (functional) on the joints associated and thereby influencing the perception of pain by the canine patient (Robertson 2010, Matthews et al 2014, Goats 1994).

The pressure of massage strokes stretches and pulls muscles fibres in various directions and mobilises the connective tissue. (Millis et al 2004, Matthews et al 2014, Weerapong et al 2005) This action separates and elongates muscle fibres and releases adhesions. (Millis et al 2004, Wilson 2002, Weerapong et al 2005) In the case of muscle tears, massage plays two roles. Firstly, it assists healing through fibroblast function and recruitment. (Matthews et al 2014, Waters-Banker 2013) Secondly, it assists in reducing the formation of scar tissue by disrupting the formation of collagen fibres. (Millis et al 2004, Hourdebaight 2004, Goats 1994, Edge-Hughes 2007) In so doing, it facilitates the muscle to remodel along the lines of normal stresses (Millis et al 2004, Hourdebaight 2004).

#### ***Other Benefits of Canine Myofunctional Therapy***

There are some other benefits of CMT as well. It proves to be a very beneficial therapy for the canine patients who are recovering from illness or surgery. It has been known to stimulate

the Lymphatic system by stimulating the circulation and return of flow from veins. Studies in the peer reviewed literature show that lymphatic system is known to be the primary effective circulatory component after massage like CMT when compared to other passive movement techniques or even electrical stimulatory procedures (Goats 1994). Study by Millis et al (2004) reports that massage can increase the lymph flow rate by 22 times (Millis et al 2004). The calming and relaxing impact of massage can reduce hyperactivity, anxiety and other correlated symptoms. CMT can also be seen as a beneficial therapy for achieving structural balance in the treated canine.

### ***Circulatory system and CMT***

As discussed above, circulatory system of body is known to be stimulated by CMT. The circulatory system aids the performance of muscular system and thus benefits the health of the Dog. As we know that the circulatory system may be divided into two components namely arterial system and venous system. The arterial part of the circulatory system is known to be dependent on the pumping action of the heart to circulate oxygenated, nutrient rich blood throughout the body's tissues via arteries, arterioles (small arteries) and capillaries (Hourdebaigt 2004). Providing fresh blood to the tissues is critical to the dog's health as it provides the body with many elements required to function.

### ***Emotional response to CMT***

As mentioned above the calming effect of CMT can be a very important factor and may give a good response in many canine patients. If the canine patient is responding to the touch of a therapist this has to be ascertained beforehand and then only the CMT regimen has to be decided by the therapist.

### ***Contraindications of Canine Myofunctional Therapy***

Along with several other factors, CMT has been known to be contraindicated in some situations. CMT is contraindicated in case there are lesions or some form of inflammation (which may be indicative of infection), as in such situations stimulation of the blood flow is not advisable. In such cases CMT may interfere with the healing process of the body and even affect the body's defence immune system. In fact in such situations CMT can even disseminate the toxins throughout the body. Myofunctional therapy is also contraindicated when the canine has

Experienced some recent injury or trauma as when injury has just occurred it is not advisable to interfere with the healing procedure of the body. Other situations which are contraindications for myofunctional treatments are pregnancy, just after a long distance travel by canine, and also just post-surgery. CMT is also contraindicated if the canine is on any kind

of medication. CMT is also to be contraindicated in case of bacterial, viral, fungal or parasitic infection and in case of any malignancy. Specifically in case of fungal infections, running and touching the skin of the canine patient may aggravate the infections and cause other complications. In CMT the touch therapy is strictly contraindicated in such cases. We also need to give importance to the approval of the veterinarian before initiating this therapy on any canine patient. CMT cannot be initiated without the consent of the treating veterinarian as we can be sure about the situation of a Dog being safe for CMT or not unless cleared by a vet doctor. We also need to be careful about the timing of giving CMT massages as it is not advisable to give CMT just after meal or at play time of the dog. At the time when CMT is administered the canine has to be in a completely serene environment and not at all distracted by other surrounding activities. The surroundings and the timing of giving CMT has be properly managed as per the routine of the Dog as only then the canine patient will be benefited fully by this massage therapy.

#### ***Safety measures to be included in treatment***

As discussed above there are some serious contraindications and if the safety parameters are not considered while giving CMT so serious problems may appear. There are some serious safety measures that are to be kept in mind while administering CMT. One of the most important safety consideration is taking into account the immune status/inflammatory status of the dog as reflected by the blood parameters, the body temperature, degree of injury (if any), any recent trauma etc. Response to CMT may vary from dog to dog as some dogs may enjoy the massage therapy at once others may be more sensitive and less adaptive to the touch therapy and alternative therapeutic modalities. In such a situation, it is advised to first try the therapy for a few minutes on the Dog and observe how it is responding both physically and emotionally to the therapy given. We may also associate reward situation with the CMT while training a particular dog to be responsive to CMT. The need of a trained therapist cannot be stressed enough for CMT as an untrained therapist may cause stress and health problems and CMT wrongly administered can be a major health trouble. CMT should be given in an environment of calmness and relaxation in a place where the dog feels comfortable and completely relaxed. The care providers should look for a trained therapist in order to give CMT to their Dogs.

## ***Conclusion***

Canine Myofunctional Therapy (CMT) is a kind of physical touch therapy that uses specialised massaging and the stretching techniques designed specifically for the canine patients. Similar to various human therapeutic massages, the manifestations of this therapy are also relaxation of the musculature and adjoining systems of the dog. CMT can be seen as a really beneficial and healing therapy for the canine patients needing relaxation, or which are in the phase of recovery for some other problems. Muscular system, circulatory system and others systems like lymphatic system are also known to be beneficially affected by the structured CMT from a trained and certified therapist. CMT is known to help in the healing of any injured muscles specifically if helps in realignment of the range of movement (ROM) of the Dog. The pressure of massage due to CMT, strokes and also pulls the muscle fibres in different directions thus mobilising the connective tissue of the dog. CMT is seen to have beneficial effect on the emotional state of the canine patient as well. As discussed above by various results and reviews from the peer reviewed literature, it has already been established that physical therapies, certain preventative treatments along with rehabilitative measures can prove to be useful in the nonsurgical management of many canine health problems. Some dogs will respond at once to the therapy and feel relaxed while some other dog may not be very responsive to the touch of therapist. It may take few sessions by the therapist to get some positive response from such patients. The therapist and the care provider has to work with patience in such cases and wait till the canine responds to the therapy emotionally and physically. Emotional response and relaxation of the canine patient is very important to get expected results of CMT. CMT is seen to be particularly beneficial in relaxation and distressing when administered at particular timings and as per the ease of the Dog. In summary this therapeutic module can be beneficial for the overall health of Dog.

## **References**

- Evans, Howard and de Lahunta, Alexander (2013), Miller's anatomy of the dog 4th edition, Elsevier Saunders, St Louis, Missouri, USA.
- Millis, D.L, Levine, D & Taylor R.A (ed) (2004) Canine Rehabilitation and Physical Therapy, Elsevier Inc, Missouri USA.
- Edge-Hughes, Laurie (2007) "Hip and sacroiliac disease: selected disorders and their management with physical therapy", Clinical Techniques in Small Animal Practice 22 p 183 – 194.
- Hourdebaight, Jean-Pierre (2004), Canine Massage: A complete reference manual 2nd edition, Dogwise Publishing, Wenatchee WA, USA.
- Mori, H, Ohsawa, H, Tanaka, H, Taniwaki, T, Leisman, G & Nishijo, K (2004) "Effect of massage on blood flow and muscle fatigue following isometric lumbar exercise", Medical Science Monitor, 10 (5) p173 – 178.
- Robertson, Julia 2010, The complete dog massage manual, Veloce Publishing Limited, Dorset UK.
- MacFarlane, P.D, Tute, S.A & Alderson, B (2014) "Therapeutic options for the treatment of chronic pain in dogs", Journal of Small Animal Practice (55) p127 – 134.
- Matthews, K, Kronen, P.W, Lascelles, D, Nolan, A, Robertson, S, Steagall, P, Wright, B & Yamashita, K (2014) "Guidelines for recognition, assessment and treatment of pain" Journal of Small Animal Practice, Vol, 55 p10 – 68.
- Goats, G.C. (1994) "Massage-the scientific basis of an ancient art: Part 2. Physiological and therapeutic effects", British Journal of Sports Medicine 28 (3) p153 – 156.
- Waters-Banker, Christine (2013) "Immunomodulatory effects of massage in skeletal muscle", Theses and Dissertations – Rehabilitation Sciences, Paper 18.
- Weerapong, P, Hume, P.A & Kolt, G.S (2005) "The Mechanisms of Massage and Effects on Performance, Muscle Recovery and Injury Prevention" Sports Medicine 2005: 35 (3) p 235-256



Wilson, J (2002) "The effects of sports massage on athletic performance and general function", *Massage Therapy Journal*, Summer, p90-10



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