

Cupping in Canine Rehabilitation: Description of a Novel Treatment Technique (Part 1 of 2)

Michael Yeo, CMT, CCKTP, CBT, SAAP, VN

Amie Lamoreaux Hesbach, PT, DPT, MS, CCRP, CCRT

Cupping is a treatment technique first described in 1550 BCE in Egypt, but similarly was used in ancient Chinese, Korean, Tibetan, and Latin American cultures to “release toxins” from tissues of the body. It is also known as vacuum cupping and has been performed with animal horns, bamboo, ceramic, glass, metal, and plastic cups, though today more commonly with glass or silicone. Dry cupping, wet cupping (or Hijama, in which incisions are made for bloodletting during the cupping process), oil (or sliding) cupping, fire cupping, moxa cupping, horn cupping (or Raktamokashan by shrung), flash (or empty) cupping, deep tissue cupping (or draining), tonifying, liquid cupping, or facial cupping are various methods or styles of cupping therapy.¹

The application of the cup to the skin of the patient is proposed to have a mechanical effect on the layers of superficial connective tissues. The cup is placed on the skin and a vacuum is created via a balloon or manual pump on the cup, an electrically-powered (and calibrated) vacuum pump, or heating of the air in the cup.² The edge or rim of the cup creates a positive pressure or compression to the skin surface, while the volume within the bell of the cup creates a negative pressure or decompression. The overall effect is that the negative pressure creates a mechanical lift of the layers of skin and superficial connective tissues, with effects extending into deeper fascial and muscular layers, loosening, lifting, and mobilizing them (relative to other tissue layers). This gliding effect, rather than the mechanical deformation of the fascia, has been demonstrated through musculoskeletal ultrasound imaging.³

The suction created is also proposed to have an effect on tissue healing and circulation, as the tissue beneath the cup is drawn up into the cup, swells, and results in increased blood and lymphatic flow to the area. Other proposed effects include the following:³

- Facilitation of the tissue healing process,
- Temporary modulation of pain,
- Reduction in inflammation,
- Improved metabolism in skin tissue, with better functioning of sebaceous and sweat glands, improved healing, and improved skin resistance,
- Increased secretion of synovial fluid within joints,
- Increased peristalsis and secretion of digestive fluids within the digestive system, resulting in better digestion and excretion,
- Improved functioning of red and white blood cells, and, thereby, the immunological system,
- Stimulation of sensory receptors and nerves of the skin,
- Improved functioning of the autonomic nervous system,
- Reduction in myofascial tension or tone, and
- Nervous system “sedation” and relaxation.¹

RockPods are a cupping therapy device consisting of “rubbery suction bell-shaped pods” made of silicone and designed, manufactured, and marketed by RockTape. They are able to apply a compressive-decompressive suctioning similar to traditional cupping tools and are used as part of a comprehensive therapy approach in coordination with manual therapies, instrument assisted soft tissue mobilization, kinesiology taping, and corrective therapeutic exercise³

Indications for use of cupping therapy, cited in the literature, include³:

Reduced tissue mobility or glide	Pain
Presence of trigger points	Poor body awareness (cortical mapping)
Motor dysfunction	Inflammation

Historically (via alternative and complementary medicine resources), indications also include hypertension, rheumatoid arthritis, diabetes mellitus, mental disorders, heart disease, hypertension, infections, skin diseases, and respiratory, musculoskeletal, digestive, reproductive, and allergic conditions.¹

A review on cupping therapy examined 35 randomized controlled trials published 1992-2010, which were of low methodological quality. Common diseases and disorders for which cupping therapy was used included herpes zoster, facial paralysis, cough, dyspnea, acne, lumbar disc herniation, and cervical spondylosis. Wet cupping was the most often used technique, however, retained cupping, moving cupping, and flash cupping were also cited. Meta-analysis demonstrated that cupping therapy when combined with other Traditional Chinese Medicine treatments was better than other treatments alone in treatment of patients with herpes zoster, facial paralysis, acne, and cervical spondylosis.⁴

Absolute contraindications for the use of cupping therapy, cited in the literature include^{3,5}:

Areas with superficial nerves	Muscle dystrophy
Open wounds, incisions, abscesses or ulcers	Infection
Skin issues (dry, cracked, fragile skin, eczema or acne)	Age: Under 7 years (for wet cupping), 2 years for dry cupping
Fractures	Excessive swelling
Dislocated joint	Bleeding disorders or on anti-coagulant therapy
Over areas with superficial blood vessels or varicose veins	Gynecological disorders
High blood pressure	Migraines
Over the abdominal region during pregnancy	Patients with a fear of blood or bleeding
Rheumatic diseases (arthritis or fibromyalgia)	Anxiety or depression

Precautions and side effects of cupping therapy, cited in the literature include^{3,5}:

Slight discomfort	Lightheadedness
Sweating	Nausea
Fatigue	Headaches
Muscle tension or soreness	Bruising (which should resolve in 1-10 days)
Skin irritation, itching, scarring or burns (if using a heated cup)	Increased risk of infection

The following is a proposed treatment protocol for the use of RockPods Cupping Therapy in canine rehabilitation:^{3,5}

1. Perform a thorough examination, including past medical history.
2. Educate owner in expected outcomes and precautions, and obtain consent to treat.
3. Choose treatment site(s), which may be a specific trigger point or an area of reduced or restricted skin or connective tissue mobility. The size and number of RockPods should be selected, specific to the size and conformation of the pet and treatment site.
4. Clean and dry the RockPods and treatment area. Trim the hair or fur coat, if necessary, to obtain suction. (Check for areas of skin irritation/scars, etc)
5. Positioning may be with the tissue relaxed (shortened), stretched (with tissues lengthened), or active (with tissues loaded).
6. Apply the RockPod to the treatment site.
 - a. Option 1: Squeeze: Squeeze the RockPod bell from the sides, to create a mild suction or decompression. (You may need to wet the skin and fur or hair with water or ultrasound gel for any of these options). Option 2: Press down lightly on the top of the bell to create negative pressure/suction. Option 3: Inverted cup: Turn the RockPod rim inside-out, place the convex cup onto the treatment site, and turn the rim “right side out” towards the target area by pushing the edge of the rim towards the treatment site. The rapid unfolding of the cup creates lift in the center of the RockPod, and results in a greater level of suction or decompression.
7. You may leave the pods in place for 30-90 sec, or incorporate gliding or stretching with pods. The RockPod may be left on for up to 2-5 minutes in patients that are more tolerant, however, longer treatment times might induce edema or bruising at the treatment site.
8. Remove the RockPod:

Option 1: Gently squeeze the cup of the RockPod on opposite sides. This is the best technique to remove the Pod in general. Option 2: The RockPod can be grasped by the handle or plunger and gently twisted and pulled. The negative pressure of the cup will also lift the skin due to suction. Please note that this technique is not recommended for use in animals as it may cause discomfort. Option 3: Natural loss of negative pressure within the cup over time will allow the cup to gently release and fall from the patient.

9. Clean the treatment site and clean and dry the RockPods after use.
10. Following treatment, it is advised that the therapist and owner monitor the treatment area for skin irritation, edema, or bruising.

RockPod treatment techniques: (Suggested treatment time is 30-90 seconds, up to 5 minutes)^{3,5}

 - Stationary, static, or placing technique: Apply the Pod for 30-90 seconds or for up to 5 minutes.
 - Static with internal glide technique: Apply the Pod and actively or passively move the body part (above and below the treatment site) through the full, available range of motion.
 - Static with external glide or sliding technique: Apply the Pod(s), and move the Pod horizontally, vertically, and in circular motions .
 - Static with external and internal glide: Apply the Pod(s). Move the Pod while also moving the body part passively or actively.
 - Shearing technique: Similar to the external glide method, use 2 Pods placed on opposite sides of the treatment site and pull the Pods in opposite directions
 - Stretching technique: Apply the Pod. Perform manual stretching techniques and hold for 30-90 seconds. (This is also called a “mobilizing technique.”)
 - Flash or pulsation technique: Apply the Pod. Repeatedly and rapidly increase and decrease the suction of the Pod multiple times at a treatment site that has acute pain or sensitization.

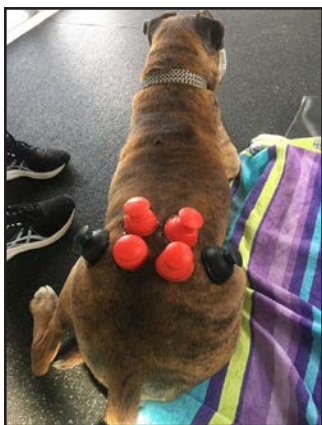
*Please note that these movement techniques are not treating the fascia but the interfaces and loose connective tissue between the fascial layers.

Remember:

- If excessive pain or sensitivity is present, remove and discontinue use of the RockPods immediately.
- Treatment time should never exceed 5 minutes per point. Shorter treatment times are recommended for animals to avoid edema and bruising and, especially, on the first treatment session.
- Cupping treatment can exacerbate acute injuries.
- Remember that “less is more.”³

Though cupping therapy is not yet a widely used modality in canine rehabilitation, it has potential benefit to increase local circulation through this previously-described compression-decompression effect. Other tools and techniques, for example, the application of kinesiology tape or the application of hair clips to the hair or fur coat overlying a treatment area,⁶ can potentially provide a similar effect with varying levels of stimulus intensity and duration of treatment effect, however, no clinical studies comparing these techniques have been done.

Cupping therapy has been reported to be utilized in large animal rehabilitation, complementary and alternative medicine, and massage therapy practice, however, only one study applying cupping to animals was found in a PubMed search. In this study, the effects of wet cupping therapy (or Hijama) were investigated as it was applied to the backs of 7 healthy Arabian horses. Two 4-ounce cups were placed on points on the back (behind the scapula) and on the rump of each horse and cupping therapy was performed using



a mechanical pump. Outcomes included measurement of arterial and venous blood parameters and serum cortisol concentration before cupping, 3 days and 2, 4, and 8 weeks after cupping. The treatment resulted in no significant difference in most hematological and biochemical parameters after cupping, but in a significant decrease in the concentration of serum cortisol at 3 and 14 days after cupping. As in this report, incisions were made for bloodletting during the cupping process, it is unknown as to whether the cupping or the bloodletting led to the reported results.⁷

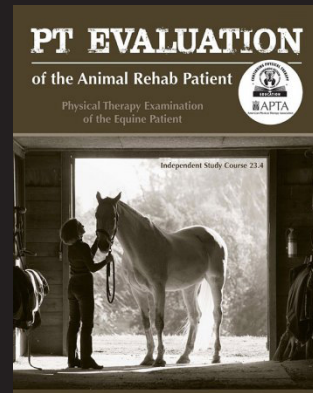
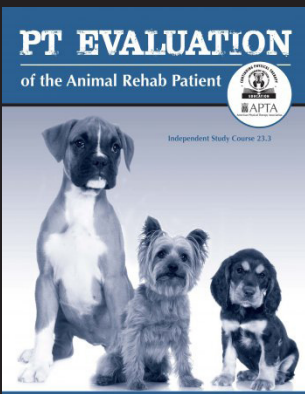
It is apparent that further investigation is necessary in the use of cupping techniques in canine (and equine) physical therapy and rehabilitation. It is the authors' advice to perform cupping therapy with caution and only following additional training and when practicing within their scope of practice. The Animal SIG looks forward to further research in this area.

(Please note that this technique is proposed by the authors and has not been authorized or approved by RockTape or RockPods.)

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