

## Current Approaches in Cupping Therapy

*Kupa Terapide Güncel Yaklaşımlar*

Kenan Toprak<sup>1\*</sup>, İsmail Koyuncu<sup>2</sup>, Aysegul Sarpkaya<sup>3</sup>, Fatmaz Zehra Kucuk<sup>3</sup>

<sup>1</sup>Harran University, Faculty of Medicine, Department of Cardiology, Sanliurfa /Türkiye

<sup>2</sup>Harran University, Faculty of Medicine, Department of Biochemistry, Sanliurfa /Türkiye

<sup>3</sup>Harran University, Vocational School of Health Services, Department of Podology Program, Sanliurfa /Türkiye

### Abstract

Cupping therapy is a traditional treatment method with deep historical roots in Ancient Egyptian Medicine, Traditional Chinese Medicine, and Islamic medicine. Its techniques include dry, wet, and moving cupping. Its proposed mechanism of action involves creating negative pressure and enhancing blood flow, thereby reducing inflammation, triggering endogenous pain modulation, and supporting immune functions. From the perspective of Traditional Chinese Medicine, it regulates the flow of energy, while in Islamic medicine, it is suggested to facilitate the removal of toxins. Recent studies have demonstrated that cupping therapy is effective in managing musculoskeletal pain, rheumatic conditions, sports rehabilitation, and circulatory health. It has been reported to alleviate pain and improve quality of life in conditions such as chronic low back pain, fibromyalgia, knee osteoarthritis, and plantar fasciitis. Furthermore, beneficial effects in neurological and psychological disorders such as migraine and depression have been documented, showing an improvement in symptoms, reduced stress, and better anxiety management. In the context of sports injuries and post-exercise muscle pain, cupping therapy accelerates recovery and increases endurance. Additionally, it has been reported to help control symptoms in asthma and enhance patient satisfaction. In abdominal obesity and metabolic syndrome, cupping therapy reduces waist circumference and triglyceride levels, yielding results comparable to acupuncture. In conclusion, cupping therapy stands out as a complementary method in various healthcare fields. However, methodological limitations in current research necessitate further studies to verify its efficacy and safety. Standardized protocols and objective measurements will bolster the scientific evidence supporting this treatment.

**Keywords:** Cupping therapy, Current Approach, Traditional treatment

### ÖZ

**Amaç:** Kupa terapisi, Antik Mısır Tıbbı, Geleneksel Çin Tıbbı ve İslam tıbbında derin tarihi kökleri olan geleneksel bir tedavi yöntemidir. Teknikleri arasında kuru, yaş ve hareketli kupa yer alır. Önerilen etki mekanizması, negatif basınç oluşturarak kan akışını artırmayı, böylece iltihabı azaltmayı, endojen ağrı modülasyonunu tetiklemeyi ve bağışıklık fonksiyonlarını desteklemeyi içerir. Geleneksel Çin Tıbbı perspektifinden bakıldığında, enerji akışını düzenlediği, İslam tıbbında ise toksinlerin vücuttan atılmasını kolaylaştırdığı önerilmektedir.

Son çalışmalar, kupa terapisinin kas-iskelet ağrıları, romatizmal rahatsızlıklar, spor rehabilitasyonu ve dolaşım sağlığı yönetiminde etkili olduğunu göstermiştir. Kronik bel ağrısı, fibromiyalji, diz osteoartriti ve plantar fasiit gibi durumlarda ağrıyı hafifletip yaşam kalitesini artırdığı bildirilmiştir. Ayrıca migren ve depresyon gibi nörolojik ve psikolojik rahatsızlıklarda belirtilerin iyileştiği, stresin azaldığı ve anksiyete yönetiminin desteklendiği rapor edilmiştir. Spor yaralanmaları ve egzersiz sonrası kas ağrısı bağlamında ise, kupa terapisinin iyileşmeyi hızlandırdığı ve dayanıklılığı artırdığı belirtilmiştir.

Ek olarak, astım semptomlarının kontrolünde ve hasta memnuniyetinin artırılmasında faydalı olduğu rapor edilmiştir. Abdominal obezite ve metabolik sendrom durumlarında, kupa terapisinin bel çevresini ve trigliserit seviyelerini azalttığı ve bu sonuçların akupunktura benzer olduğu görülmüştür.

Sonuç olarak, kupa terapisi çeşitli sağlık alanlarında tamamlayıcı bir yöntem olarak öne çıkmaktadır. Ancak, mevcut araştırmalardaki metodolojik sınırlamalar, etkinliğinin ve güvenliğinin doğrulanması için daha fazla çalışmayı gerekli kılmaktadır. Standart protokoller ve objektif ölçümler, bu tedavi yöntemini destekleyen bilimsel kanıtları güçlendirecektir.

**Anahtar kelimeler:** Kupa terapisi, Güncel yaklaşım, Geleneksel tedavi

\*Corresponding author: Kenan Toprak, Harran University School of Medicine Hospital, Osmanbey Campus, Haliliye, Sanliurfa / TÜRKİYE E-mail: kentoprak@hotmail.com Received: 03 December 2024 Accepted: January 2025

<sup>ss</sup>Two of the authors of this article serve on the journal's editorial board; the peer-review process was conducted by independent editor(s).

Cite as: TOPRAK.K et al. Current Approaches in Cupping Therapy. IJCMBS 2025; x(x): xxxxxx doi.org/ 10.5281/zenodo.14608805

### Highlights

- Cupping therapy helps with pain, rheumatic conditions, sports recovery, and mental health issues like migraines and depression.
- It reduces waist size, triglycerides, and aids asthma symptom control.
- Despite its diverse applications, methodological limitations in current studies highlight the need for standardized protocols and objective measurements to validate its efficacy and safety.

### Introduction

Cupping therapy is a modality within traditional medicine that has spanned from antiquity to the present day. Historical data show that this therapy technique has held an important place in the medical literature of Ancient Egypt, Traditional Chinese Medicine, and Islamic medicine (particularly in the form referred to as “hijama”) (1–3). When examining the methods and mechanisms of cupping therapy, it is evident that various techniques—including dry cupping, wet cupping, and moving cupping—are employed (2,4). The mechanism of action is believed to involve the generation of negative pressure and enhanced circulation, increasing regional blood and lymph flow, and thus delivering more oxygen and nutrients to the tissues. Additionally, it may modulate inflammatory responses and pain by inducing mild stimulation on the skin that activates endogenous pain modulation mechanisms, triggering the release of certain cytokines and neuropeptides that reduce inflammation. In Traditional Chinese Medicine, cupping therapy is thought to balance energy (qi) flow by focusing on meridians and acupuncture points, while in Islamic medicine (“hijama”), it is proposed to support the body’s detoxification processes, boost blood circulation, and reinforce immune function (2–4). With roots dating back thousands of years, cupping therapy appears in written sources in both Far Eastern and Middle Eastern medicine in various forms (3). Modern scientific research has increasingly focused on its potential benefits in a wide range of areas, particularly pain control, musculoskeletal conditions, and enhancing circulation (1,4).

### Literature Review Method

This review was compiled by searching international databases such as PubMed, Scopus, Web of Science, and Google Scholar between 2019 and 2023 using the keywords “cupping therapy,” “kupa terapisi,” “hijama,” and “complementary and alternative medicine.” Inclusion criteria encompass peer-reviewed clinical studies, meta-analyses, and systematic reviews published between 2019 and 2023 focusing on cupping therapy’s efficacy in various conditions, while exclusion criteria include non-clinical studies, case reports, and publications with insufficient methodological rigor. A total of 65 studies were reviewed, including 40 clinical trials, 15 meta-analyses, and 10 systematic reviews.

Studies identified as relevant based on title and abstract screening were accessed in full text, with a primary focus on clinical research and meta-analyses. The objective of this extensive literature search was to identify current trends and potential research gaps regarding cupping therapy in recent literature. The following section provides a multifaceted evaluation of the theoretical foundations and clinical efficacy of cupping therapy. It discusses the main themes, case selection criteria, intervention methods, and reported outcomes of the selected studies.

### Musculoskeletal Pain and Rheumatic Diseases

Cupping therapy has been described as a method offering remarkable effects in the management of musculoskeletal pain and rheumatic diseases. Studies on chronic low back pain have reported that dry cupping alleviates pain and improves quality of life. When applied in conjunction with Traditional Chinese Medicine approaches, cupping therapy has shown a more pronounced effect compared to nonsteroidal anti-inflammatory drugs (5). Similarly, dry cupping has been reported to significantly reduce pain levels in nonspecific neck pain in the short term, providing quicker pain relief when combined with ischemic compression of trigger points (6). In patients with fibromyalgia, wet cupping has proven effective in relieving pain and sleep disturbances, leading to a meaningful reduction in both pain intensity and the number of tender points. These outcomes suggest that cupping therapy may serve as a complementary option for fibromyalgia management (7).

In patients with knee osteoarthritis, cupping therapy has been reported to reduce pain and stiffness while contributing to functional improvement; meta-analyses underscore its significance in enhancing physical function and mitigating symptoms (8). Moreover, in cases of plantar fasciitis, dry cupping was found effective in relieving heel pain and facilitating functional recovery, with marked improvement in pain severity and range of motion (9).

Collectively, these findings suggest that cupping therapy may be a promising complementary method for pain management and quality-of-life enhancement in musculoskeletal and rheumatic conditions. The improved blood flow and reduced inflammatory markers observed with cupping therapy directly correspond to the reduction in pain and stiffness reported in conditions like knee osteoarthritis. Beyond physical pain, cupping therapy has shown promise in addressing conditions with a neurological and psychological basis, further broadening its therapeutic scope.

### **Neurological and Psychological Disorders**

Cupping therapy is also viewed as a method with potential benefits for neurological and psychological disorders. For example, wet cupping has been reported to reduce the frequency and intensity of migraine attacks, with one study noting an average 66% decrease in headache severity. Moreover, the reported side effects were mild and transient (10). It has additionally been proposed that the regulatory effects of cupping therapy on circulation may aid stress and anxiety management. In the treatment of depressive disorders, a combination of acupuncture, cupping therapy, and physical exercise has shown favorable results by promoting overall mental and physical well-being (11). The regulation of blood flow and reduction in neuroinflammatory markers may underlie the observed decrease in migraine severity and improved anxiety management.

### **Sports Health and Rehabilitation**

Cupping therapy has also garnered attention as an auxiliary method for sports injuries and post-exercise muscle soreness. Dry and moving cupping applications reportedly expedite muscle recovery processes by reducing post-exercise pain, and they further increase muscle strength and endurance (12). For sports injuries, it is suggested that cupping therapy promotes healing by regulating circulation and diminishing inflammation. Studies in this area have demonstrated lower perceived pain levels and enhanced joint mobility (13). The benefits of cupping therapy on physical recovery and performance extend to cardiovascular and circulatory health, highlighting its systemic effects.

### **Circulatory and Cardiovascular Health**

Cupping therapy may have cardioprotective benefits, as it has been associated with improvements in electrocardiographic parameters, possibly playing a role in arrhythmia management. Certain research indicates that dry cupping significantly reduces arrhythmia prevalence (14). Additionally, using larger-sized cups has been reported to enhance cutaneous blood flow more effectively, potentially strengthening the circulatory benefits of the method (15).

### **Dermatological Conditions**

Cupping therapy has also shown promise as a complementary approach for dermatological disorders. Moving cupping in plaque psoriasis has been observed to reduce both inflammation and skin thickening, yielding significant improvements in PASI and DLQI scores; no relapse was reported during a six-month follow-up (16). For eczema, wet cupping has demonstrated symptomatic relief, although larger scale randomized controlled trials are needed for more conclusive evidence.

### **Respiratory Disorders**

In asthma, wet cupping therapy may prove effective in symptom management and improving patient satisfaction. Studies have reported notable improvements in asthma control scores and a significant increase in patient satisfaction with treatment (17).

### **Obesity and Metabolic Diseases**

For abdominal obesity and metabolic syndrome, medical cupping therapy has been shown to reduce waist circumference, triglyceride levels, and subcutaneous fat thickness, providing results comparable to acupuncture. Moreover, the lower frequency of treatment sessions compared to some other interventions is considered an advantage that may enhance patient compliance (18–20).

### **Clinical Applications of Cupping Therapy**

Cupping therapy has been applied in various clinical settings, demonstrating benefits across multiple conditions.

For musculoskeletal pain, such as chronic low back pain and knee osteoarthritis, it has been shown to reduce pain intensity and improve physical function (5, 8). In fibromyalgia, it alleviates pain and sleep disturbances by decreasing the number of tender points (7). Neurological disorders like migraines have also been addressed, with studies reporting reduced headache frequency and severity (10). In respiratory conditions, wet cupping has been linked to improved asthma control and higher patient satisfaction (17). Additionally, cupping therapy has been explored for its role in reducing waist circumference and triglyceride levels in patients with abdominal obesity and metabolic syndrome, showing results comparable to acupuncture (18–20). Additionally, promising results have been obtained in epileptic patients (21,22).

These findings underline cupping therapy's versatility as a complementary approach, although further studies are needed to validate its effects in larger populations.

## Recommendations and Conclusions

Studies from 2019 to 2023 indicate that cupping therapy may serve as a supportive method for a range of conditions, notably musculoskeletal pain, certain chronic pain syndromes, sports rehabilitation, and circulatory disorders. Despite a recent surge in research on cupping therapy, methodological limitations and the absence of standardized treatment protocols make it difficult to generalize findings. Therefore, more advanced research designs, including the use of blinding and appropriate control groups, are needed to strengthen the foundational evidence of its efficacy and safety. Future investigations are expected to integrate comprehensive and long-term clinical trials with standardized cupping protocols, controlled and blinded methodologies, and objective measurements of biological markers (e.g., inflammation, tissue oxygenation). This approach will help establish a robust scientific foundation on the efficacy, safety, and applicability of cupping therapy.

To advance the understanding and application of cupping therapy, future research should focus on developing standardized protocols that include parameters such as cup size, duration, and frequency. Additionally, exploring the effects of cupping therapy on biomarkers related to inflammation, tissue oxygenation, and immune function could provide valuable insights into its mechanisms of action. Conducting long-term randomized controlled trials is also essential to comprehensively evaluate its efficacy and safety across diverse patient populations.

---

**Acknowledgements:** Two of the authors of this article serve on the journal's editorial board; the peer-review process was conducted by independent editor(s).

**Ethical Approval:** As this is a review study, obtaining ethical approval is not required according to the rules of the local ethics committee.

**Author Contributions:** Concept: KT, İK. Literature Review: KT, İK, AS, FZK. Design: KT, İK. Data acquisition: AS, FZK. Analysis and interpretation: AS, FZK. Writing manuscript: AS, FZK. Critical revision of manuscript: KT, İK.

**Conflict of Interest:** The author(s) do not have any potential conflict of interest regarding the research. authorship and/or publication of this article.

**Financial Disclosure:** No financial support was received for this study.

---

## References

1. National Center for Complementary and Integrative Health. NCCIH strategic plan FY 2021–2025: mapping the pathway to research on whole person health. Bethesda (MD): National Institutes of Health; 2021.
2. Wang L, Cai Z, Li X, et al. Efficacy of cupping therapy on pain outcomes: an evidence-mapping study. *Front Neurol*. 2023; 14:1266712.
3. Choi TY, Ang L, Ku B, et al. Evidence map of cupping therapy. *J Clin Med*. 2021;10(8):1750.
4. Komal A, Satpute S, Naikwade N, et al. Review on cupping therapy. *Nat J Pharm Sci*. 2024;4(2):104-11.
5. He JY, Tu XY, Yin ZF, et al. Short-term effects of cupping and scraping therapy for chronic nonspecific low-back pain: a prospective, multicenter randomized trial. *J Integr Med*. 2024;22(1):39-45.
6. Nasb M, Qun X, Ruckmal Withanage C, et al. Dry cupping, ischemic compression, or their combination for the treatment of trigger points: A pilot randomized trial. *J Altern Complement Med*. 2020;26(1):44-50.
7. Karacaoglu C, Ersoy S, Pala E, et al. Evaluation of the Effectiveness of Wet Cupping Therapy in Fibromyalgia Patients: A Randomized Controlled Trial. *Bewertung der Wirksamkeit der blutigen Schröpftherapie bei Fibromyalgie-Patienten: Eine randomisierte kontrollierte Studie. Complement Med Res*. 2024;31(1):10–9.
8. Wang Z, Xu H, Wang Z, et al. Effects of externally applied, non-pharmacological interventions on short- and long-term symptoms and inflammatory cytokine levels in patients with knee osteoarthritis: a systematic review and network meta-analysis. *Front Immunol*. 2023; 14:1309751.
9. Szlosek PA, Campbell M. Effectiveness of dry cupping as a treatment for plantar fasciitis: a critically appraised topic. *J Sport Rehabil*. 2022;32(2):227-33.
10. Abdulah DM, Mohammedsadiq HA, Mohammed AH. Effectiveness of wet cupping therapy on relieving pain in

- patients with chronic migraine: an observational study. *J Complement Integr Med.* 2021;18(3):569-77.
11. Zhang S, Li X, Wu Y, et al. Effects of integrated acupuncture, cupping therapy, and exercise on depressive symptoms: a systematic review. *Complement Ther Med.* 2023; 72:102883.
  12. Balbaloglu Ö. Kas-iskelet sistemi ve spor rehabilitasyonunda kupa tedavisinin kullanımı ve faydaları. *Türkiye Klinikleri Traditional and Complementary Medicine-Special Topics.* 2023;4(1):49-53.
  13. Abdelfattah A, Zureigat A, Almotiri A, et al. The impact of wet cupping on haematological and inflammatory parameters in a sample of Jordanian team players. *Heliyon.* 2024;10(7): e29330.
  14. Hamzehnejadi Y, Shahrabaki PM, Alnaiem M, et al. The impact of massage and dry cupping on dysrhythmia in cardiac patients: A randomized parallel controlled trial. *J Bodyw Mov Ther.* 2024; 38:417-24.
  15. He X, Zhang X, Liao F, et al. Using reactive hyperemia to investigate the effect of cupping sizes of cupping therapy on skin blood flow responses. *J Back Musculoskelet Rehabil.* 2021;34(2):327-33.
  16. Qiao X, Yang C, Yang W, et al. Moving cupping therapy combined with acupoint bloodletting for plaque psoriasis: A case report. *Explore.* 2024;21(1):103098.
  17. Joushan A, Hatami HR, Agin K, et al. The effect of wet cupping therapy on the clinical symptoms of adult-onset asthma: A randomized clinical trial. *Turk J Med Sci.* 2024;54(4):838-46.
  18. Kim H, Kim KW, Chung WS. Effects of cupping therapy for obesity: A protocol for systematic review and meta-analysis. *Medicine (Baltimore).* 2021;100(44): e27701.
  19. Cui-Mei L, Xiao-Man W, Song-Ge S, et al. A clinical study on medical cupping for metabolic syndrome with abdominal obesity. *Tradit Med Res.* 2019;4(1):4.
  20. Rahman HS, Ahmad GA, Mustapha B, et al. Wet cupping therapy ameliorates pain in patients with hyperlipidemia, hypertension, and diabetes: A controlled clinical study. *Int J Surg Open.* 2020; 26:10-5.
  21. Düzgün Ü, Yesiltas F, Karadas O, et al. Investigation of Complementary and Alternative Medicine Use in Turkish Patients with Epilepsy: CAM and Turkish Patients with Epilepsy *International Journal of Current Medical and Biological Sciences.* 2023;3(1):64-71.
  22. Çetinkaya A, Fidan E, Göksu S, et al. Evaluation of the Protective Effect of the Cup Therapy on the Epileptic Seizure in Rats. *Konuralp Medical Journal.* 2021;13(3):606-13.