



Cupping: time to re-evaluate its position

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Introduction

Cupping is one of the oldest and most effective methods of eliminating toxins, both natural and man-made, from the body's tissues and organs. It was, and still is, practiced extensively in one form or other in most parts of the world, as a cheap and available means of maintaining good health, preventing disease and curing a wide range of ailments. It remains a mainstay of traditional Chinese medicine. Although it was widely practiced in the West until quite recently, it has largely fallen into disfavour, primarily because of the advent of modern, conventional medicine. However, there has been a surge of popularity for the procedure in the developed world and elsewhere, as awareness of its potential has grown. It is used either as a stand-alone treatment for chronic and recurring disorders such as rheumatoid arthritis, or in combination with complementary techniques such as massage, or in combination with conventional medicine as partners in integrative medicine. This review describes the background to cupping, its various forms, the clinical benefits conferred, and the putative mechanism of action in the light of recent findings on inflammation, cytokines, and cell metabolism. Its role in severe disorders such as rheumatoid arthritis is outlined for illustration.

Overview

In Tibb, the Lifestyle Factors are the major determinants of health, based on the person's way of life and personal habits. If there is disharmony in a person's lifestyle by, for example, indulging in a faulty diet, or not taking enough exercise, or not breathing properly, or not sleeping soundly, then Physis begins to lose control of the overall health of the body.

Physis is the inherent ability, present in all living creatures, to initiate, coordinate and regulate the countless metabolic processes which proceed continuously in order to maintain life in harmony. This "inner doctor" establishes homeostasis within the body, so ensuring good interactions between all parts, and establishes a harmonious relationship with the outside environment. Physis, by various mechanisms available, restores

harmony when or wherever it is disturbed by changes to lifestyle, personal habits, or by intrusion from the environment.

One of these important Lifestyle Factors, Retention and Elimination, relates to the food and drink people consume. The good, nutritious material provided is retained as provider of energy, repair and maintenance of the body. Elimination refers to the expulsion from the body of natural waste products (such as carbon dioxide and urea) and any accumulated, potentially harmful, toxins. If someone is unable to remove the waste and toxins, a number of therapies are available. They include exercise, massage, poultices, steam baths, venesection, diuresis, purging, and vomiting.

A major technique for eliminating toxins, both internally formed and assimilated from the environment, is *therapeutic cupping*. This technique was widely practiced, in one form or another, virtually throughout the known world. It is a traditional technique, with a history going back for many centuries. Although the procedure fell into disuse and almost obscurity in the last century or two, there has been a revival of interest in it in the last few years. The reason? Clinical evidence points to its efficacy, either alone or as adjunctive therapy with conventional medicine, in certain chronic disorders. Furthermore, there is increasing scientific support for therapeutic cupping, particularly for its stimulant effect on certain parts of the body's immune system, a major component of Physis.

What is therapeutic cupping?

Cupping is the practice of applying a partial vacuum by means of heat or suction in one or several bell-shaped vessels (suction cups) to specific and different parts of the skin. This causes the tissues beneath the cup to swell and be drawn up into the cup. The result is increased blood flow to the area, which draws impurities and toxins away from the nearby tissues and organs. The release of the vacuum diverts pooled toxin-containing blood at the site to other parts of the body, so allowing "fresh" blood to flow in to replace it. This stimulates deep healing of tissues and organs close to the site of application. The skin where cupping is applied may be intact, or scarified prior to the procedure.

Other terms for cupping:

- *Hijaamah* (lit: sucking)
- Fire cupping
- Body vacuuming
- The horn method

Cupping is a simple, safe, non-invasive and inexpensive procedure. It is used to alleviate the pain and discomfort arising from disorders of the joints, lungs and other internal organs, muscle spasms, and numerous other conditions.

"Cupping is the most helpful act for human beings to cure themselves with" [Prophet Muhammed (pbuh)]

The historical progress of cupping

Cupping has been widely practiced since ancient times, and is shown in a carving as far back as 1500 years BCE. We know from surviving artifacts that it was commonly practiced by the ancient Babylonians, the Egyptians in the times of the Pharaohs, and by the early Chinese. In these times cupping was carried out sometimes using metal cups, or bamboo tree

sections, or bulls' horns, from which the air was removed by vigorous sucking. Later, this technique gave way to the use of burning tapers or lighted cotton to heat up the enclosed air, which on cooling, contracted to form a partial vacuum. In ancient Babylon in Assyria, massage was used to supplement the healing achieved by cupping.

Hippocrates, acknowledged as the "Father of Medicine", described different versions of cupping in his *Guide to Clinical Treatment*. He recommended it particularly for the relief of angina and menstrual disorders. Several centuries later, Galen, another pioneer of medicine, was an enthusiastic practitioner of the procedure.

After a long period of neglect, cupping was revived in the Islamic age. Strict adherence to rules of application was demanded, with close attention paid to process, timing and patient condition.

In Europe, cupping was advocated by such early medical pioneers as Paracelsus and Ambrose Paré.

Traditional healers in many parts of the world use cupping or local versions of it in their healing repertoires. Cultures along the western shores of North America use sea shells instead of cups and Native Americans close by use buffalo horns to the same effect. In Africa, Asia and many parts of Europe, hollow animal horns are still used effectively as cupping devices.

This technique has been used by practitioners of Westernised (allopathic) medicine for many centuries to treat a range of diseases, culminating in peak usage in the mid-18th Century. Thereafter, there was a rapid decline of cupping, for several reasons. First, the technique was vigorously opposed by the newly formed professional doctors' associations, who regarded it as an archaic, out-of-date practice. Second, the revolution in the chemical industry was producing drugs which were preferred for the diseases targeted by cupping. Third, the concept of humours was discredited in favour of more modern interpretations of disease.

However, there has been a noticeable revival in interest recently, and the application of cupping is increasing markedly. Therapeutic cupping is being used by the cosmetic industry, taking advantage of its effect of toxin elimination. This results in better skin tone and reduced cellulite formation. It is also been practiced in sports medicine for the management of injuries and pain reduction (1).

Its value in modern, conventional medicine is increasingly being shown in the treatment of a number of illness conditions, such as arthritis (2).

This revival of interest in cupping is largely due to increased awareness of the pervasive nature of environmental and food toxins, and their possible role in chronic and recurring maladies, largely resistant to conventional medical therapy.

The ability of cupping to release toxins from tissues for expulsion and to simultaneously stimulate the immune system is an attractive alternative therapeutic option for many health-conscious people.

Cupping in the Islamic world

The Arabic term for cupping, *hijaama*, means "to reduce in size. That is, to return the body back to its natural state" (3)

The practice of cupping (*hijaama*) is widespread in the Islamic world, and has been so for centuries. It is a basic aspect of surgery wherever it is available. It is commonly practiced in most steam-baths (*hammam*) throughout the region, along with bloodletting, massage and hydrotherapy. Cupping has the full support of the religious authorities, as it is endorsed by

the Prophet Mohammed (pbuh) in numerous directives. It fulfills three important roles – maintenance of optimum health, prevention of diseases, and treatment of particular ailments.

Several prominent Muslim medical education pioneers contributed to the corpus of knowledge on the theory and practice of cupping, Al-Zahrawi (936-1013 CE) and Al-Razi (865-925 CE) amongst them. However, perhaps the foremost, and best known, practitioner of cupping was Ibn Sina, generally accepted as the “Prince of Physicians” (980-1037 CE). His thoughts on the procedure are presented in his epochal reference book of medical theory and practice, namely the *Canon of Medicine*, and in other works. He not only detailed the underlying theory and the target disorders which would benefit, he also advised on patient selection and preparation, actual technique and best time for the procedure. Other advice related to where on the body the cups should be positioned and for how long.

Tibb and cupping

The three major pioneers of Tibb – Hippocrates, Galen and Ibn Sina – were staunch supporters of cupping, and their adherents practiced it extensively. The Hippocratic School held that all illness was the result of an imbalance in the body of the [four humours](#): [blood](#), [phlegm](#), [yellow bile](#), and [black bile](#). When these fluids are in ideal proportion, the person enjoys good health. However, if the humoral balance is seriously distorted, he or she will succumb to a particular ailment. Hippocrates’ cupping (and other) treatment was therefore directed at restoring harmony between the four humours.

Hippocrates (480-340 BCE), described the practical aspects of both dry and wet cupping in his *Guide to Clinical Treatment*. He recommended it for the treatment of angina, and menstrual and other gynaecological disorders. He apparently preferred dry cupping, as this was less intrusive, more gentle and fitted better with his famous principle: “*First do no harm*”.

An important focus of hygiene practice in Greek (*Unani*) Medicine is encouraging the elimination of wastes and toxins from the body. The reason is that their build-up leads inexorably to increased sickness and perhaps death. In disorders such as constipation, urinary retention and some menstrual disorders, cupping is considered to improve elimination, by boosting blood and lymph flow in the body.

Galen (130-201 CE) also considered cupping a major therapeutic option, perhaps even more so. He recommended the wet procedure for a host of ailments.

Ibn Sina, the third Tibb pioneer, was also a keen advocate of cupping, as outlined above.

The modern view of cupping

The use of therapeutic cupping is viewed with a great degree of scepticism by most practitioners of modern, conventional medicine. It is regarded as an outdated, primitive technique which belongs in the realms of natural medicine, and so is an irrelevant contributor to general healthcare in today’s world. The same applies to the claims of clinical benefit made by cupping practitioners, most of which are regarded as exorbitant or outlandish. The value of cupping in serious disorders such as cancer and rheumatoid arthritis is generally not accepted

one iota. Any clinical improvement which may accrue is considered to be just a manifestation of subjective bias or the placebo response. In addition, most claims made for cupping are seen as being purely anecdotal, and not backed by firm scientific evidence. “Where are the randomised clinical trials?” they ask.

In recent years, however, a number of studies have been reported, revealing the value of cupping, either alone or in combination with other therapies, in a range of common disorders. These included skin disorders such as herpes and severe acne, and troublesome disorders such as facial paralysis and cervical spondylosis.

Cupping and Integrative Medicine

Integrative medicine selects the best, scientifically proven therapies from both complementary and conventional systems.

Integrative medicine is a partnership between complementary or traditional and conventional medicine, such as Tibb, for the treatment of clinical disorders, whether acute, chronic or recurring in nature. Treatment deals initially with the presenting symptoms, largely by use of conventional drug therapy. It then addresses the causes of the underlying disorder by applying selected forms of complementary medicine. These forms may include dietotherapy, herbal medication (*phytotherapy*), or physical measures such as massage and acupressure.

Integrative medicine uses procedures, both conventional and complementary, which are proven effective on an empirical or scientific basis, and backed up by acceptable clinical practice. It accepts the major role of complementary medicine in chronic and recurring diseases, and disorders brought about by an imprudent lifestyle, genetic defects or excessive exposure to environmental toxins.

Tibb is ideally suited as a partner for conventional medicine in Integrative Medicine for a number of reasons: it focuses on supporting inner self-healing processes; it advocates realistic lifestyle-linked changes in behaviour; it involves the patient in both diagnosis and treatment; and it can provide a number of therapeutic options of proven efficacy. Furthermore, Tibb is consistent with conventional therapy, as they share a common ancestry. Integrative Medicine is especially effective in dealing with chronic, refractory or recurring disorders. It focuses on support and stimulation of the person’s innate healing mechanisms, rather than just alleviating symptoms of the disorder. It achieves this by combining realistic lifestyle changes, individualised therapies and selected herbal therapy. Active involvement and motivation of the patient is a key factor in accurate diagnosis and successful therapy, and in achieving and maintaining optimum health.

Cupping, a traditional therapy in Tibb, is in many ways an ideal partner for conventional medicine. It acts to stimulate Physis, so promoting inner healing. It is completely free from interference with the mechanisms of action of most if not all conventional drugs used to alleviate troubling symptoms of the disease being treated. Furthermore, it is a practical technique which does not need high-tech equipment or specialised skills needing extensive training. In the treatment of the inflammatory disorder rheumatoid arthritis, for example, the acute symptoms of excessive inflammation would be suppressed by conventional anti-inflammatory drugs, whereas

the underlying causes would be addressed by therapeutic cupping. This would help in arresting further progress of the disease.

Types of cupping

Bloodletting can be divided into two basic types – generalised bleeding from the veins or arteries (*phlebotomy*), and localised bleeding into cups over scarified skin (*wet cupping*).

Originally, alcohol, dried herbs, or paper were placed in a cup and set alight. When the flames died down the cup was quickly placed upside down on a pre-selected part of the patient's skin, such as the back or chest, and left there for about 10 to 15 minutes. Some practitioners systematically move the cup around the skin – in effect massaging the area. These days, a mechanical suction apparatus is preferred.

In the former, a substantial volume of blood can be withdrawn, at the physician's discretion. This practice has been largely abandoned in the West, and other parts of the world. In the latter form, a small amount of blood is withdrawn, depending on the patient and his or her condition. The major difference between these two practices is the biochemical composition of blood. A study comparing venous blood to that obtained from wet cupping showed that the amount of low density lipoprotein cholesterol (LDL), triglyceride (TG), red blood cell (RBC) counts, haemoglobin (Hb), the haematocrit and blood viscosity were higher in the wet cupping blood. (4)

This practice is making a comeback in many countries, including some in the Western world.

There are two basic forms of cupping:

- **Dry cupping** – employs suction only – no blood is withdrawn.
- **Wet cupping** – suction combined with controlled bleeding, in which the skin immediately below the cup is superficially lacerated with very light cuts, so allowing blood to be withdrawn under the pressure of the cup. The bleeding generally stops automatically as part of the physis response.

The form of cupping used is at the discretion of the practitioner.

How does cupping work?

Cupping assists Physis, by helping to restore harmony to the immune system.

Cupping appears to enhance both the person's cellular and humoral immunity. In particular, clinical evidence suggests that cupping modulates the human immune response, specifically by affecting the cytokine network. One study in particular provides a theoretical basis for cupping action [Bondok].

The reduced pressure induced by cupping causes the tissue below the suction cup to swell and become engorged with filtered and interstitial fluids which contain causative pathological substances (CPS). This suction pressure causes the phenomenon of reactive hyperemia, nitric oxide production, and improves lymphatic and capillary circulations and restores homeostasis. (5)

Also, “fresh” blood flows into these regions, so providing the necessary state for restoring normal health. The blood which is diverted is replaced by healthy blood.

In *dry cupping*, the toxins are brought to the underlying skin. *Wet cupping*, with the use of skin scarification, enhances the natural excretory functions of the skin, allowing the toxins to be brought out of the body.

Overall, the site covered by the cup becomes irritated. This serves to alert Physis, which diverts healing resources to the area.

“Where energy flows, illness never goes” [Chinese aphorism]

- **Cupping assists the liver** – by increasing blood perfusion, so removing the metabolic load imposed by the disease and perhaps any drugs used to treat the disease.
- **Cupping supports the immune system** – by acting on the reticulo-endothelial system to help it in opposing the actions of invading microbes.
- **Cupping supports the nervous system** – by helping to reverse *ischaemia* (inadequate blood flow), which can lead to conditions characterised by cerebro-metabolic insufficiency, such as memory disturbances, epilepsy and emotional conditions.
- **Cupping supports the renal system** – by helping to reverse the ischaemia which underlies many disorders.

Cupping practitioners consider that the procedure strengthens the immune system, so encouraging the optimum functioning of the body. This effect on the immune system speeds up healing in people suffering from numerous diseases.

Cupping has been found to:

- affect the body up to four inches into the tissues near to the cupping site, causing them to release toxins
- activate the lymphatic system
- clear colon blockages
- help activate and clear the veins, arteries and capillaries
- activate the skin, clear stretch marks and improve varicose veins

The clinical benefits of cupping persist for several days after the procedure – it exerts an

Cupping also stimulates acupuncture points, and releases biologically active small proteins called *endorphins*.

The human body tries to eliminate morbid matter by sending it to the skin surface as rashes, inflammation or eruptions. This is termed *peripheralisation*. Cupping is a way of boosting this process, and relieving pathogenic congestion which is present in the internal organs. In doing so, it prevents more serious disorders from developing.

By drawing congested blood or other humours to the surface, cupping behaves as a form of derivation therapy. Derivation means the drawing away or diversion of vital energies or substances from the site of blockage and obstruction in order to relieve congestion and restore health and patency to the organism.

Scientific support for cupping's mechanism of action

The following abstract was derived from:

Cupping: The Great Missing Therapy. Bondok, S M. Dar Al-Salam. (Cairo) (2010) 977 342 394 8

Abstract: Cupping in patients with rheumatoid arthritis

Background: Current conventional treatment of rheumatoid arthritis (RA) aims at reducing inflammatory symptoms, but does not address the underlying causes or stop disease progress. It is unsatisfactory, usually ineffective, badly tolerated, expensive to treat, and there is a high disability rate. Although symptoms may improve temporarily, joint destruction proceeds unabated usually. Drug therapy is often toxic, with a poor benefit risk ratio. **Design:** In this study, 50 patients with clinically confirmed RA were selected according to strict diagnostic criteria, plus 10 healthy age and sex matched controls. Twenty RA patients were treated with conventional therapy alone (second line methotrexate plus corticosteroids), and thirty with identical conventional therapy, but supplemented with standard wet cupping procedure. Duration of treatment was three months. Clinical and physical assessments were performed pre-study, then at one-month intervals subsequently. Laboratory tests (blood count, C-reactive protein [CRP]; rheumatoid Factor [RF]; Interleukin-2 receptor) were carried out in all participants pre-study, and at study conclusion. **Results:** Patients in both groups showed a decrease in all clinical markers (pain, tender joint, swollen joint, disease activity). Improvements appeared much earlier with combined therapy. Improvement in lab tests (CRP; RF; T-lymphocyte count) was consistently best with combined therapy. With conventional therapy alone, however, there was a significant decrease in WBC, but no change in RBC. After 3 mo therapy combined therapy induced significant reduction in soluble IL-2 receptors, showing clinical improvement. In the conventional group alone, there was no significant change. **Conclusion:** This study provides some direct scientific evidence that cupping modulates the human immune response, possibly by affecting the cytokine network. Adding cupping to conventional treatment in patients with severe RA gave better clinical outcome. Combined cupping and conventional therapy was definitely superior to conventional alone. Furthermore, cupping appears to improve the patients' cellular and humoral immunity.

Clinical disorders benefiting from cupping

The benefits of cupping have been extensively documented over the centuries that it has been practiced in many cultural settings, and studied scientifically more recently. Dry cupping is particularly effective in neutralising pain from injuries, and restoring energy in those suffering from fatigue or anaemia.

The categories of disease which benefit from cupping are:

- Disorders of the skin, especially acne, eczema and bruising (*haematomas*).
- Rheumatic disorders, such as arthritis, fibromyalgia, back pain and spasms, and sciatica.
- Migraine, other headaches and eye pains.
- Disorders of blood circulation, such as hypertension, varicose veins and restless legs.
- Disorders of the digestive system, such as irritable bowel syndrome, with its episodes of diarrhoea and constipation.
- Diseases of the chest and airways, especially bronchial asthma, allergy-induced congestion and chills.
- Pain involving the neck, stomach, joints and muscles.

Cupping has been compared to acupuncture in terms of clinical benefit. However, the response to acupuncture is relatively mild, whereas to cupping it is considered

The benefits of cupping are not restricted to bodily symptoms, but to disorders of the mind, such as depression and anxiety.

Also, cupping has a role in:

- Symptoms of the menopause, especially in its early stages.
- Fertility disorders linked to gynaecological problems.
- Adjuvant therapy in cancer – to relieve adverse reactions to chemotherapy, radiation therapy and surgery.

In a number of clinical studies, cupping has been shown to:

- Normalise blood pressure in patients with primary (essential) hypertension.
- Decrease blood creatinine in more than 78% of patients with kidney failure.
- Reduce plasma uric acid levels in around 50% to 74% of hyperuricaemic patients.

Cupping increases blood flow to and through the patient's skin. In doing so it helps the body's elimination processes, boosting the removal of artificial toxins especially. This becomes evident to the patient as a clearer and healthier complexion, especially after several cupping sessions.

Selecting the optimum time for cupping

According to Tibb, the best time for cupping when treating a specific complaint is regarded as spring-time, when the body is emerging from the lethargy of winter, and the flow of body fluids is beginning to increase. For cupping as part of health maintenance, autumn is considered the best time, as the levels of impurities and toxins in the body are likely to have reached their maximum levels. According to strict Muslim protocol, fasting is recommended on the 13th, 14th and 15th days of the lunar cycle, facilitating the concoction of humours, followed by cupping on the 17th, 19th and 21st days for effective elimination of humours/toxins.

[In the treatment of illness conditions, cupping, either wet or dry, can be done at any time at the discretion of the practitioner.]

Adverse reactions to cupping

Although the standard cupping procedures are usually safe and trouble-free, occasional adverse reactions have been reported. Mild skin discomfort from localised burning may be reported, and slight bruising visible. If this adverse reaction scenario does occur, then cupping should be discontinued immediately, the patient encouraged to have a rest and lie down, and take a drink of natural or sugared water.

One way of avoiding adverse reactions to either form of cupping is to encourage the patient to eat a light meal and increase his/her water intake in the few hours before the procedure.

Cupping from the Traditional Chinese Medicine perspective

According to TCM theory, cupping is considered to act by warming and promoting the free flow of *Chi* energy and blood, dispelling cold dampness, diminishing swellings and pains. Cupping therapy has been further developed as a means to open the “*meridians*” of the body. Meridians are the conduits in the body through which energy flows to every part of the body and through every organ and tissue. There are five meridians on the back which, when opened, allow invigorating energy to travel the whole length of the body. It has been found that cupping is probably the best way of opening those meridians.

In clinics, cupping is mainly used to treat the *Bi* syndrome, which includes symptoms of low back pain, shoulder and leg pain, gastrointestinal disorders such as stomach ache, vomiting and diarrhoea, and lung diseases such as cough and asthma. The cupping method combined with bloodletting is often used to treat acute sprains accompanied by blood stasis.

Discussion

Cupping is arguably the oldest and most widely practiced medical treatment in human history, and remains popular throughout most cultures of the world. Unlike modern medicine, and in common with much of traditional, natural or complementary medicine, cupping has not been extensively studied. There are many insurmountable hurdles - theoretical, logistical, and financial - to conducting randomised double-blind studies at sufficient power to satisfy largely sceptical conventional clinical critics. However, the inescapable fact is that cupping in various forms has been applied empirically for centuries, even millennia, to generally satisfied patients. It has proven itself effective in the maintenance of people’s well-being, and the prevention and treatment of a veritable host of physical and mental ailments. This bears testimony to the value of this cost-effective, largely non-intrusive and easily learned procedure. Even so, one recent scientifically valid study showed that cupping combined with standard conventional therapy in patients suffering from rheumatoid arthritis gave a superior clinical outcome to conventional medication alone.

References

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Further Reading

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