

Reflexology for Relaxation

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Anxiety accompanies many illnesses and their treatments. Complementary therapies are seen as playing a valuable role in helping people relax. Reflexology is one such therapy, based on ancient approaches to foot massage.¹ The therapy has been growing in popularity, such as in the United Kingdom where reflexology is believed to be the complementary therapy most frequently practiced

by nurses.² This popularity has led to questions about its potential role in clinical settings, especially as a non-invasive, non-pharmacological method of inducing relaxation.³

Reflexology looks very much like a foot massage. However, it is based on the view that specific regions called reflex zones (or reflex points) in the feet are connected to particular organs, glands, and regions of the body (*see Figure*).⁴ Thus, one definition of reflexology is that it is a "system of massage of the feet based on the idea that there are invisible zones running vertically through the body, so that each organ has a corresponding location in the foot."³ The same principles are applied to reflexology of the hands and ears, but the focus here will be on foot reflexology.⁵ Understanding the foundations of reflexology, and the results of research exploring its effectiveness, will help guide health care professionals responding to patients' questions about reflexology.

Background

Ancient Chinese and Egyptian diagrams of foot massage are said to depict earlier forms of reflexology, although the modern approach was proposed in 1913 by William Fitzgerald, MD, a laryngologist at Boston City Hospital.⁶ Fitzgerald noticed that pressure applied to specific parts of the hands or feet induced anesthesia in other parts of the body. From this developed the idea of zone therapy, whereby the body was envisioned as having 10 vertical zones running from the feet to the head and down each arm. Pressure applied to the area on a foot where a zone ends is believed to elicit a response within the internal organs falling within that same zone. Eunice Ingham, a massage therapist, further developed the therapy in the 1930s, reporting improvements in patients with illnesses as varied as asthma, angina, and arthritis.⁶ From these beginnings several schools of reflexology have developed that differ somewhat in the precise locations of various reflex zones and in the treatment methodology.⁷

Mechanism of Action

Broadly speaking, three different mechanisms of action have been proposed for reflexology. One is that massaging of the reflex points stimulates specific nerves, thus improving blood flow around related organs and leading to healing or improved health in those organs.⁸ A second explanation is that tension or illness in any organ will lead to the accumulation of tiny crystalline deposits of calcium and uric acid in the reflex zones of the feet.⁵ The pressure applied to the feet during reflexology then breaks up these deposits allowing them to be eliminated in a process called detoxification. The third proposed mechanism of action is based on the nonphysical life energy (chi, Qi, or prana) and meridian system that underlies other alternative therapies like acupuncture, shiatsu, and therapeutic touch.⁵ Reflexology employing this latter approach is therefore much more than a physical treatment, but also involves spiritual and emotional aspects.⁴

Regardless of how the reflex zones are believed to interconnect the body, all approaches to reflexology develop maps of the feet showing these connections. The maps are very specific, as exemplified by the following description. "On both feet, the spine runs along the medial aspects of the foot, the coccyx area is represented at the level of the heel, and the seventh cervical vertebra lies at the juncture of the great toe and foot. Many additional glands, organs, and body part reflex areas also are located in specific zones on the various areas of the feet (and hands)."⁴

The practice of reflexology emphasizes the importance of the "evolving therapeutic relationship" between the patient and practitioner.⁹ Within this context, a variety of foot massaging techniques are used. Palpation of the feet is used to gather information on the patient's overall health. Areas of the feet that are sensitive, painful, or "gritty" are noted.⁴ Changes in the skin are taken to indicate areas of energy stagnation in the corresponding zone. Denser areas suggest the need for deeper massage of those regions to decongest the energy. Several reflexology sessions will normally be suggested for maximum benefit.

Clinical Studies

Although many anecdotal reports claim successful outcomes after reflexology, very little controlled research has been carried out.² An early randomized controlled study involved 83 women with premenstrual syndrome (PMS) complaining of 38 different symptoms.¹⁰ Participants were randomly assigned to true reflexology or a sham reflexology. The latter involved pressuring participants' feet, hands, and ears on acupuncture-related points believed to have no association with PMS symptoms. Many participants dropped out of the study, with only 35 completing. The results found significantly greater reduction in PMS symptoms for those receiving true reflexology, including reduced symptoms of anxiety and irritability ($P < 0.01$). Others have pointed out that the reflex points used in this study are classic acupuncture points, claiming this study supports the efficacy of acupressure, not reflexology.⁷

A pilot study with 18 patients given a number of reflexology treatments found statistically significant reductions in pre- and post-treatment heart rate and systolic blood pressure ($P < 0.003$).¹¹ Diastolic blood pressure and respiratory rate were lower, but not with statistical significance. A control group was not used.

Another small study found some favorable results with 23 patients with breast or lung cancer.¹² In a cross-over design, subjects' anxiety and pain levels were measured before and after 30 minutes of reflexology or a no-intervention control. Post-reflexology anxiety levels were significantly lower when compared both to pre-reflexology levels and to control ($P = 0.000$). Pain levels were also significantly reduced after reflexology.

Thirty cancer patients, upon hospitalization, were randomly assigned to receive reflexology or no intervention.¹³ State-anxiety was measured before, immediately after, and 24 hours after intervention. Anxiety was reduced after reflexology, with the average score being significantly lower than in the control group ($P < 0.05$). One day later, the score in the reflexology group had not changed significantly.

Seventeen patients with chronic obstructive pulmonary disease (COPD) were randomly assigned to reflexology or control.³ Therapy sessions occurred weekly for four consecutive weeks, with participants either receiving reflexology or discussing the stresses in their lives (a much shorter meeting). Outcomes were assessed using quality-of-life questionnaires, lung function tests, and physiological measures of relaxation. The only measurement showing statistically significant differences was a short-term reduction in heart rate following reflexology ($P < 0.05$). None of the other physiological or psychological measures of relaxation differed significantly between the two groups.

A pilot study was conducted with 17 patients with advanced cancer.¹⁴ They were randomly assigned to receive either reflexology or foot massage weekly for six weeks. On average, the scores for anxiety and depression did not change over the course of the study, nor did they vary between the two groups. A number of other mood levels and symptoms were measured, with no statistical differences between the two groups.

Another randomized study compared reflexology to foot massage in 76 women with menopausal symptoms.¹⁵ Each woman received nine therapy sessions over 19 weeks. Scores for anxiety and for depression decreased significantly in both groups over the first six weeks of the study ($P < 0.001$), but not from week six to week 19. No significant differences were found between the two groups at any point.

Adverse Effects

Serious adverse effects have not been reported after reflexology. A number of authors state that reflexology can elicit catharsis or a "healing crisis."¹⁶ This normally lasts only a couple of days. The symptoms can be physical, such as headache, nausea, diarrhea, or coldness, and emotional, such as periods of unexplained crying or depression. No controlled evidence is available to document the prevalence or cause of these symptoms, which usually are explained as resulting from the breakdown of crystalline products in the body as it detoxifies.⁵

What distinguishes reflexology from foot massage is the importance given to the zone maps of the feet. These maps are particularly important if reflexology is used to treat a specific condition or diagnose an illness. Reflexology organizations usually discourage such practices, yet they continue to occur. Reflexology maps vary sufficiently between one another to raise

serious questions about their reliability and validity in guiding treatment or diagnosis.⁹ One study examined the reliability of two reflexologists' diagnostic skills.¹⁷ Both were blinded to the conditions present in 18 adults with between one and six previously specified medical conditions. Reflexologists were unable to accurately diagnose which patients had which conditions, and there was little agreement between the two therapists. The little evidence available suggests that using reflexology foot maps to guide treatment or diagnosis could lead to misdiagnoses and inaccurate decisions. The latter could be serious.

Conclusion

A small number of controlled studies support the effectiveness of reflexology in inducing relaxation. Reflexology has induced significantly more relaxation in controlled studies comparing it with placebo interventions. However, in the two studies comparing reflexology and foot massage, the relaxation effect was not significantly different. This suggests that reflexology does not offer additional benefits over foot massage. No studies have found evidence to support the existence of the zones that underlie reflexology theory, nor to support the use of reflexology to diagnose illnesses. A review of more than 8,000 cases in China found no evidence of reflexology's effectiveness for acute conditions.⁶ Reflexology, like other forms of massage, may be an effective means of promoting relaxation, which in turn may be of benefit to patients with chronic, painful conditions. However, the evidence suggests that an ordinary foot massage is as effective as reflexology in inducing relaxation.

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Hand reflexology is a therapeutic massage technique. When administering hand reflexology, pressure is applied to parts of the hand in order to stimulate other parts of the body. Reflexology is a holistic massage technique. Stimulation of these reflex points can promote relaxation, improve circulation, and encourage self-healing. For a holistic approach on optimizing your health and lifestyle, check out The 5 Pillars of Optimal Health course here at Udemy.