

# Alternative Medicine

## Some definitions, evidence & references

**For Health Care Benefits Guidelines**

By

WorkSafeBC Evidence-Based Practice Group

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WORKING TO MAKE A DIFFERENCE

**Clinical Services  
Worker and Employer Services**

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## Active Release Techniques®

### Definition

The developer of Active Release Techniques® (ART®), P. Michael Leahy, DC, defines ART as “patented, state of the art soft tissue movement based *massage technique*” to treat various musculoskeletal and other conditions that are the result of ‘overused muscle’,<sup>(129)</sup> such as arthritis, achilles tendonitis, ankle injuries, back pain, back injuries, bursitis, carpal tunnel syndrome, compartment syndrome, headache, meniscal injuries, thoracic outlet syndrome, scar tissue formation, and various others.<sup>(130)</sup>

### The Evidence

Two case reports<sup>(131,132)</sup> (level 5 evidence) were identified from a systematic search in PubMed (January 8, 2008). Spina<sup>(131)</sup> reported on the application of ART® in treating one patient diagnosed with coxa saltans, while Howitt et al.<sup>(132)</sup> reported on the application of Graston Techniques and ART® in treating one patient diagnosed with trigger thumb.

As such, at present, there is no published evidence on the effectiveness of ART® compared to other massage techniques in treating various disorders. At present, there is anecdotal, level 5 evidence, on the effectiveness of ART® in treating coxa saltans. At present, it is not clear whether there is any evidence on the effectiveness of ART® in treating trigger thumb.

### References

129-132

## Adventure Therapy

### Definition

Adventure Therapy (AT) is perceived as a therapeutic modality combining the presumed therapeutic benefits of adventure experiences and activities with those of more traditional modes of therapy<sup>(85)</sup>. Ringer<sup>(86)</sup> defines AT as a generic term referring to a class of change-oriented, group-based experiential learning processes that occur in the context of a contractual, empowering, and empathic professional relationship. It is generally perceived that AT generally fall into one of four categories i.e. wilderness therapy; adventure based therapy; long term residential camping; and, outdoor behavioural healthcare<sup>(87)</sup>. A recent adventure therapy seminar in the UK provided evidence of confusion with regard to the definition of AT<sup>(88)</sup>. To date, there is no set of curricula or a designated professional body to regulate AT professionals<sup>(89)</sup>

### The Evidence

A small case-control (evidence level 4) showed a 31% relapsed rate at 10 months follow-up among AT group (n=13) compared 58% in the control group (n=18) of patients participating in substance abuse treatment.

### References

85 – 90

## Applied Kinesiology

### Definition

Applied Kinesiology (AK) is also called 'touch for health'. AK consists of both the diagnostic method of determining dysfunctional states of the body and related therapeutics. Its' method is based on a combination of physical and biofield methods. It is based on principles of physiology and the meridian system. It uses both the meridian qi and the biofield qi in its diagnostic and treatment methodologies. Neurolymphatic holding points, neurovascular holding points and the biofield external qi are all said to be incorporated in the process. A session starts with various 'muscle testings' that are used to determine the state of qi flow through the meridians. Muscle testings give an indication of the area to be worked on and are a necessary part of the treatment.

### The Evidence

To date, there is no evidence for the effectiveness of applied kinesiology.

### References

3, 41

## Aromatherapy

### Definition

Aromatherapy is the therapeutic use of plant essential oils obtained by distillation or expression from leaves, roots, flowers, stems, seeds, wood, resin or fruit. It is delivered through inhalation, topical with or without massage, by suppository or by mouth. It is a part of the discipline of phytotherapy (the use of whole plants or parts of plants for medicinal purposes). Essential oil is defined as 'non-oily, highly fragrant essences extracted from plants by distillation, which evaporate readily'.

### The Evidence

Systematic reviews have identified that there is **no** evidence for the effectiveness of aromatherapy in treating various dermatological conditions, or for labour pain management.

Evidence is **inconclusive** for treatment of the common cold, bronchitis, anxiety, alopecia areata, or dementia in the elderly.

There is **minor evidence** for its effectiveness as providing mild relaxation among cancer patients.

### References

11, 21-25

## Bowen Technique

### Definition

Bowen Technique (BT), which was developed by Tom Bowen in Australia, is described as a system of subtle, precise mobilizations called Bowen movement. Bowen moves are applied, using fingers and thumbs, over muscle, tendons, nerves and fascia. A single treatment consists of a series of specific sequences of these moves, called procedures, with frequent pauses to allow time for the body to respond.<sup>(125)</sup> It is stated that the goal of BT is to assist the body in restoring structural integrity and optimal function.

A survey in the UK, conducted among alternative medicine practitioners, found that many alternative medicine practitioners believe that BT is beneficial in treating headache/migraine, respiratory problems including asthma, musculoskeletal problems, menstrual problems, skin problems including eczema, neck/shoulder pain and irritable bowel syndrome.<sup>(126)</sup> Another survey identified the application of BT in treating children with brain injury.<sup>(127)</sup> Long et al.<sup>(126)</sup> also pointed out that there was no study to support the effectiveness of BT in treating back pain.

### The Evidence

A small case series (N = 20) (evidence level 5) reported in 2 papers,<sup>(125,128)</sup> by the same author, presented the application of BT in patients diagnosed with frozen shoulder. Even though the author reported patients' improvement in their pain and range of motion, this study is of low quality. The author did not account for the potential of selection bias, measurement errors, multiple outcomes with multiple measurements, multiple comparisons, and the natural history of the disease itself.

### References

125-8

## Cranio-Sacral Therapy

### Definition

There is no standard definition on this topic in the literature. It can be described as a gentle, hands-on treatment method that focuses on alleviating restrictions to physiological motion of all the bones of the skull, including the face, mouth, vertebral column, sacrum, coccyx and pelvis. Concurrently, the craniosacral therapist focuses as well on normalizing abnormal tensions and stresses in the meningeal membrane, with special attention to the dura mater (outermost membrane) and its fascial connections.

### The Evidence

The Evidence-Based Practice Group in collaboration with the BC Office of Health Technology Assessment has conducted a systematic review and found **no** evidence on the effectiveness of cranio-sacral therapy.

For further information readers are referred to the [Cranio-Sacral Therapy research findings](#).

### References

3, 13



## Dry Needling, or Intra-muscular Stimulation (IMS)

### Definition

Dry needling is a technique that uses needles to treat myofascial pain in any body part, including the low back pain<sup>6</sup>. Dry needling involves the insertion of a needle (it can be an acupuncture needle or any other injection needle without injecting any liquid) at the myofascial trigger pain points (not toward meridian points as it is practiced in acupuncture). The needles are removed once the trigger point is inactivated. The activation of the trigger point should be followed by exercises, for example, with the purpose of re-establishing a painless, full range of motion and avoid recurrences. At present, the mechanisms underlying the action of dry needling is still unclear.

IMS, which was developed in 1973, is defined as a total system for the diagnosis and treatment of myofascial pain syndromes (i.e. chronic pain conditions that occur in the musculoskeletal system when there is no obvious injury or inflammation). The treatment involves dry needling of affected areas of the body without injecting any substance. The needle sites can be at the epicenter of taut, tender muscle bands, or they can be near the spine where the nerve root may have become irritated and supersensitive.

### The Evidence

A recently published Cochrane review (level 1 evidence) investigating the effectiveness of acupuncture and dry needling for low back pain (dry needling in this review was applied to myofascial pain in the low back region), concluded that there was:

- ✚ limited evidence that dry needling was better than placebo TENS immediately after end of each sessions among chronic low back pain (LBP) patients
- ✚ limited evidence dry needling added to a regimen of physiotherapy, occupational therapy and industrial assessments was better than the regimen of physiotherapy, occupational therapy and industrial assessments alone immediately after end of each sessions, at < 3 months follow-up and at 3-12 months follow-up among chronic LBP patients
- ✚ moderate evidence that there was no difference between one dry needling and one trigger point injection session among sub-acute LBP patients
- ✚ moderate evidence that there was no difference between one dry needling and one cooling spray over trigger point area + acupressure among sub-acute LBP patients

### References

98-102

## Equestrian Therapy

### Definition

Therapeutic riding is the combination of physical therapy and equestrian techniques designed to build strength, coordination, and self-esteem<sup>(83)</sup>. It is claimed that equestrian therapy offers a person with a disability an excellent means of physical activity that aids in improving balance, posture, coordination, and the development of a positive attitude and sense of accomplishment<sup>(84)</sup>. Equestrian therapy has been applied in various physical and mental disorders, including cerebral palsy, autism, stroke, trauma-related injuries, birth defects and mental retardation.

### The Evidence

To date, there is no published literature on equestrian therapy or on its efficacy or effectiveness in treating these conditions.

### References

83 – 84

## Extracorporeal Shockwave Therapy (ESWT)

### Definition

ESWT is the application of medical device that is based on the use of shock waves, (i.e. micro second pressure impulses) which delivers sonic pulses from outside of the body, over a specific site (e.g. calcific deposit in a tendon). Continuing with this example, the hypothesis is, that by applying this sonic wave, the calcific tendon is supposedly broken down resulting in a reduction in pain. However, the pathological process of this phenomenon is still unclear despite numerous research undertakings in this area.

### The Evidence

Various systematic reviews have been done, on the topic of ESWT for treating lateral epicondylitis, plantar fasciitis, pseudoarthrosis, including one by the Evidence Based Practice Group, Workers' Compensation Board of BC, and **none** of the reviews demonstrate evidence on the effectiveness of ESWT.

Last up-date June 2004

### References

15-19, 57

## Glucosamine (usually with chondroitin)

### Definition

Glucosamine is a natural substance found in the body and is formed by the combination of glucose and glutamine. It is found primarily in cartilage and is the building blocks of the ground substance of the articular cartilage, the proteoglycans. The rationale for the use of glucosamine in osteoarthritis is based largely on in-vitro and animal models of osteoarthritis. For example, glucosamine has been shown to normalize cartilage metabolism, rebuild experimentally damaged cartilage, and demonstrate mild anti-inflammatory properties. Researchers believe that glucosamine inhibits inflammation and stimulates cartilage cell growth, while chondroitin provides cartilage with strength and resilience. Currently, glucosamine and chondroitin are classified as dietary supplements.

### The Evidence

There is some Level 1 evidence on the short and long term effectiveness of glucosamine in alleviating osteo-arthritis symptoms, as measured by pain index, the Lequesne index or WOMAC, particularly of the hip or knee joint. There is also some Level 1 evidence on the possible role of glucosamine as a structure-modifying drug for OA as measured by x-ray imaging of the joint space.

The majority of research regarding glucosamine and osteo-arthritis was undertaken on patients with either knee or hip osteo-arthritis. This **limitation** raises questions regarding generalizations of outcomes for osteo-arthritis of other joints such as those in the hand/wrist, shoulder and ankle.

The majority of clinical studies were done with **glucosamine sulphate** and little evidence is available on the efficacy of other forms of glucosamine (e.g. hydrochloride, chlorhydrate salt, hydro iodide, combination with herbs, vitamin A, vitamin E, or minerals including Mg, K, Cu, Zn or Se).

The majority of the primary research on glucosamine **is funded by** manufacturers of the compound.

The longest reported clinical trial on glucosamine and osteo-arthritis occurred over 3 years. Given the nature of osteo-arthritis as a chronic disease process, the information on the long-term toxicity/side effects of glucosamine administration is **still lacking**.

Information on possible drug interaction(s) is still lacking.

The use of combination glucosamine and chondroitin for treatment of osteo-arthritis has become extremely popular. However, there is **no evidence** that this combination is more effective than either supplement alone.

### References

30-35, 54

## Hellerwork

### Definition

Hellerwork is an offshoot of Rolfing. Hellerwork incorporates movement re-education training to bring the body into fuller activity and expression. Hellerworkers seek to realign the body by using intense pressure and stroking to stretch shortened and tightened fascia back into shape. The goal is to make the fascia softer and more flexible, and to restore its natural balance in relation to muscles, tendons, and bones.

Hellerwork includes verbal dialogue and movement exercises that complement the massage component. Through verbal dialogue, Hellerworkers help clients explore attitudes, feelings, and past traumas that may be contributing to their current physical and emotional state. Using movement exercises, clients are taught how to sit, stand, walk, run, bend over, and perform other ordinary actions in a stress-free, efficient way. This threefold approach aims to realign the body and release deeply held tensions, which, it is believed, will help increase energy, flexibility, and overall health and well being.

### The Evidence

To this date, there is no published literature on the effectiveness of Hellerwork.

### References

3, 39

## Herbal Medicine

### Definition

There is no standard definition of herbal medicine (HM), but it perhaps can be defined as the application of plants for medicinal purposes. Some experts define HM as 'crude drugs of vegetable origin on which many are potentially toxic'. However, herbal medicine it can be said that herbal medicine is the foundation of modern pharmacology. HM has existed for millenia in many countries (e.g. traditional Chinese medicine, Ayurvedic medicine in India and Kampo medicine in Japan). Various 'modern' drugs are plant in origin, for example aspirin, ergot, curare, strychnine, taxol.

### The Evidence

It is inappropriate to provide a general statements on herbal remedies since each remedy has to be evaluated on its own merits. It is not in the scope of this short definition to provide a review on the effectiveness of herbal remedies.

However, it is important to remember that **herbal remedies are still unregulated** and are regarded as dietary supplements. As such there is no standardization and possible adulteration in the preparation processes may occur.

It is also important to remember that **some of these remedies are toxic** and studies have shown the occurrence of interaction between herbs and 'modern' drugs.

### References

3, 25, 26, 28, 29

## Hydrotherapy

### Definition

Hydrotherapy or hydrotherapeutics or sometimes referred to as hydrotherapy<sup>(91)</sup>, i.e. the use of the properties and healing powers of water. The term hydrotherapy generally means a definite theory of cure in which the value of water is above all else and the administration of other medicinal agents is perceived as harmful or unhelpful<sup>(91)</sup>. However, rehabilitation professionals define hydrotherapy as a pool therapy program specifically designed for an individual to improve neuromuscular skeletal function conducted and supervised by appropriately qualified personnel, ideally in a purpose-built hydrotherapy pool<sup>(94-97)</sup>.

Thalassotherapy literally means sea therapy. The official definition of thalassotherapy came from the French Sea and Health Federation in 1986. It says 'in a privileged marine location, thalassotherapy is the combined use, under medical supervision, and with a curative and preventive goal, of the benefits of the marine environment which include the marine climate, seawater, mud, sand, seaweed and other substances derived from the sea'<sup>(91)</sup>.

Balneotherapy or spa therapy is defined as the use of baths (hot or cold springs or natural occurring waters) and other natural remedies (including mud) for healing<sup>(91,92,93)</sup>.

### The Evidence

- ✚ There was no evidence on the effectiveness of hydrotherapy for treating chronic low back pain (Evidence Level 1).
- ✚ There was no evidence on the effectiveness of hydrotherapy (alone or as a component of physical therapy program) as part of treatment of ankylosing spondylitis (Evidence Level 1).
- ✚ There was conclusive evidence on the effectiveness of hydrotherapy over land based exercise therapy in the rehabilitation of post reconstructive Anterior Cruciate Ligament surgery (Evidence Level 1).
- ✚ There was no evidence on the effectiveness on the addition of whirlpool sessions in treating grade III-IV pressure ulcer (Evidence Level 1).
- ✚ Evidence on the effectiveness of hydrotherapy in treating fibromyalgia is inconclusive (Evidence Level 1).
- ✚ The application of hydrotherapy also posed some risk to patients. There were reports in the literature regarding legionella infections, burn, folliculitis and hypersensitivity pneumonitis which were related to hydrotherapy (Evidence Level 4).

### References

91-97

## Magnetic Insole Therapy

### Definition

Magnet therapy involves the use of a magnetic device placed on or near the body to relieve pain and facilitate healing. Magnet therapy has been applied on various conditions including arthritis, insomnia, carpal tunnel syndrome and headaches. The theory behind magnet therapy is that the magnetic fields produced by magnets (or by devices that generate electromagnetic current) can penetrate the human body and affect the functioning of individual cells and improve the working of the nervous system and various organs. Precisely how the magnetic fields do this is still unknown.

### The Evidence

There is **no** evidence to support on the effectiveness of magnetic shoe insoles in treating plantar heel pain.

The effectiveness of magnetic shoe insoles in treating diabetic peripheral neuropathy is still **inconclusive**.

### References

19, 42-44, 55



## **Naturopathic Medicine**

### **Definition**

Naturopathic Medicine (NM) is a unique system of primary health care in that it is not limited to a single modality of healing and cannot be identified with any one therapeutic approach. NM incorporates many complementary medical approaches to treatment. NM is based on an understanding that the human organism contains a powerful healing intelligence called the 'vital force'. Naturopathy supports the vital force by following 6 principles of naturopathic medicine.

In naturopathy, a variety of interventions are used to help mobilize the 'vital force' in patients to bring about cure. These modalities include nutrition, botanical medicine, homoeopathy, mind-body medicine, physical medicine life style counselling, acupuncture, ayurveda.

### **The Evidence**

The Evidence Based Practice Group has not done a systematic review of this topic.

### **References**

3, 11, 27

## NeuroKinetics® Health Services (BC) Inc.

### Definition

NeuroKinetics® Health Services (BC) Inc., a health services company in Vancouver, claims to provide 'a specialized neurophysiological approach and expertise based on sensory-motor and cognitive dysfunction analysis within the central nervous system resulting from injury, trauma, shock, overexertion or exposure to toxic substances' through the means of 'integration between Western medical neuroscience with Traditional Chinese Medicine and acupuncture along with the principles of neuroplasticity'.<sup>(103)</sup>

The founder of NeuroKinetics®, Philippe A. Souvestre, is a non practicing medical doctor (graduated from France), a BC registered acupuncturist, and a registered member of the Canadian Association of Rehabilitation Professionals.<sup>(104)</sup>

### The Evidence

A systematic search on 5 commercial databases available through OVID® found only 1 article that relates to the NeuroKinetics® method.<sup>(105)</sup> The article, in the form of an abstract, was presented at the 2001 International Symposium on Concussion in Sport. The abstract was poorly written and did not provide any information to show the effectiveness of the NeuroKinetics® method in treating post concussion syndrome. As such, to date, there is no evidence on the effectiveness of the NeuroKinetics® method in treating various conditions including post concussion syndrome.

NeuroKinetics® Health Services (BC) Inc. should not be confused with Australia's NeuroKinetics<sup>(106)</sup> or The University of Alberta-affiliated Neurokinetics Inc.<sup>(107)</sup>

Australia's NeuroKinetics claims to provide 'non-judgmental, non-invasive, non-manipulative skeletal alignment through innovative neurological transmission pathways in the Central Nervous System'. The treatment involves lightly touching (with fingertips) pairs of points, purported to be mechano-receptors that are responsive to pressure or activated by physical pressure, located just on or just under the surface of the skin. A systematic review on 5 commercial databases available through OVID® found no articles that relate to Australia's NeuroKinetics. As such, to date, there is no evidence on the effectiveness of this method.

The University of Alberta-affiliated Neurokinetics Inc. is a startup company developing the Bionic Glove®. The Bionic Glove, which is based on Functional Electrical Stimulation, is an electric device that allows a motion-impaired individual to grip an object.<sup>(107)</sup> The EBPG did not conduct a systematic review on this product.

### References

103-107

## The OmegaWave Sport Technology System®

### Definition

The OmegaWave Sport System claims to evaluate six human body systems, including the autonomic nervous system, "energy" systems, cardiopulmonary systems, detoxification system and hormonal system. These abilities are all performed through analysis on data collected from heart rate variation, 3 lead ECG and EEG (omega wave detection)<sup>(1,2)</sup>. The producer of the OmegaWave Sport System claims that it is a revolutionary product used to enhance athletic performance and physical fitness quickly, non-stressfully, and non-invasively. In his e-mail to the EBPG<sup>(3)</sup>, the company representative claims that the ability of the 'Tension Index', a feature available in this system, correlates with progression and regression of disease. The system also provides quantifiable measures of cumulative stress.

### The Evidence

Based on a systematic review undertaken by the EBPG, there is no evidence on the efficacy or effectiveness of OmegaWave Sport Technology System in assisting with the diagnosis of various conditions, including stress of various origins, coronary disease and development of variously reported disease conditions. No data is available to assess the sensitivity, specificity, false positive, false negative, positive or negative predictive value and the likelihood ratio of a positive or a negative test in order to assess the 'systems' potential role as a diagnostic test. There is limited evidence that the OmegaWave Sport Technology System does not provide accurate measurement of VO<sub>2</sub>Max in young athletes.

A full systematic review document on the OmegaWave system can be found at:  
[http://worksafebc.com/health\\_care\\_providers/Assets/PDF/omegawave.pdf](http://worksafebc.com/health_care_providers/Assets/PDF/omegawave.pdf)

### References

108-113

## **Ortho-Bionomy**

### **Definition**

Ortho-Bionomy or "the correct application of the laws of life" is an osteopathically-based form of body therapy which is being used to treat chronic stress, injuries and pain or problems associated with postural and structural imbalance. The practitioner uses gentle movements and positions of the body to facilitate the change of stress and pain patterns. A strong focus is placed on the comfort of the individual. No forceful manipulations are used. The practitioner also suggests home exercises for individuals to further facilitate the neuromuscular re-education process begun in the session.

### **The Evidence**

There is no published literature on ortho-bionomy.

Last up-date July 2004

### **References**

45

## Ozone Therapy

### Definition

Ozone therapy is based on exploiting the chemical properties of ozone (O<sub>3</sub>), an unstable allotropic form of oxygen. It has been used to treat various conditions including cancer, peripheral occlusive arterial disease and lumbar disc herniation. Today, there is a lack of published research on this subject.

### The Evidence

There is a lack of evidence in the effectiveness of ozone or oxygen-ozone therapy in treating cancer, peripheral occlusive disease and lumbar disc herniation.

### References

25, 36-38

## **Prolotherapy**

### **Definition**

Prolotherapy is the rehabilitation of an incompetent structure, such as ligament or tendon, by the induced proliferation of cells. Prolotherapy supposedly induces the proliferation of collagen tissue that make up structure such as ligaments, tendons and joint capsular tissue by the injection of proliferant substance such as extract of corn, glucose, pitcher plant, zinc manganese, extract of cod liver oil together with local anesthetic agents into the involved body area.

### **The Evidence**

There are 12 published papers on Prolotherapy (1966-2004). There exists a lack of evidence or no evidence for the effectiveness of Prolotherapy in treating diseases such as chronic pain, low back pain (level 1 evidence), osteoarthritis and chronic headache.

### **References**

1 - 9, 52-53, 56

## Pulsed Signal Therapy

### Definition

Pulsed Signal Therapy is a specific form among a class of devices, which use pulsed electromagnetic energy to induce electrical current, which is claimed to promote healing in injured or diseased tissues.

### The Evidence

The Evidence-Based Practice Group in collaboration with the BC Office of Health Technology Assessment has conducted a systematic review and found **NO** evidence on the effectiveness of pulsed signal therapy.

For further information readers are referred to the [Pulsed Signal Therapy for Musculoskeletal Conditions](#) research findings.

### References

14

## Qigong

### Definition

Qigong is a therapeutic Chinese practice that includes gentle exercises for the breath, body, mind and the voice. It combines repetitions of coordinated physical motions with mental concentration and directive efforts to move the 'qi' (biofield flux, vital energy) in the body. It is also defined as methods used to cultivate, regulate and harness 'qi' for general self preservation and health, healing, self defense, longevity and particularly spiritual development. Currently, there are over 100 methods of Qigong available.

### The Evidence

The Evidence Based Practice Group has not done any systematic review on this topic.

### References

3, 10-12



## Reflexology

### Definition

Reflexology is a part of pressure point therapies that uses pressure on specific points to reduce pain and treat various conditions. Reflexology recognizes specific zones on the hand and feet are related to specific organ, glands and body systems. The pressure is applied to a specific zone in order to cure the disease. Reflexology has been tried on various conditions, including relief of pain, release of kidney stones, recovery from stroke, sinusitis, sciatica, menstrual disorder, encopresis and enuresis in children.

### The Evidence

The Evidence Based Practice Group has not done any systematic review on this topic.

### References

3, 40

## Rolfing

### Definition

Rolfing, also known as Structural Integration, is another method of body manipulation. Unlike other body manipulation methods, Rolfing focuses on the fascia. Rolfing is based on the premise that physical and emotional stress, as well as gravity, can throw the body out of vertical alignment and cause muscles and fascia to become rigid and inflexible. These problems can then lead to more stress, illness, and a loss of general well-being. Rolfing aims to realign the body by using intense pressure and stroking to stretch shortened and tightened fascia back into shape. The goal is to make the fascia softer and more flexible, and to restore its natural balance in relation to muscles, tendons, and bones. Rolfing practitioners manipulate the fascia rather than the muscles themselves. Pressure from the practitioner's knuckles, knees, elbows, or fingers on this connective tissue is said to release deeply held tension and stress. Rolfing is basically another method of massage therapy.

### The Evidence

To this date Rolfing has been applied on various conditions including cerebral palsy in children, anxiety, stress and symptoms of low back pain and whiplash and changes in parasympathetic tone. However, evidence on its effectiveness is still lacking.

### References

3

## **Therapeutic Touch (TT)**

### **Definition**

Therapeutic Touch is a method of detecting and balancing nonphysical 'life energy', also called prana or chi. A balanced flow of life energy between the environment and the body is assumed to underlie good health. Imbalances and blockages in the energy field lead to illness and ill-health. Life energy has not been detected with scientific instruments. Practitioners state they sense the energy field after entering a meditative state called 'being centered.' Much publicity recently surrounded a controversial study which found that TT practitioners could not detect human energy fields with statistical reliability.

### **The Evidence**

There is not enough evidence available on TT with regard to reducing anxiety, relieving pain, or promoting healing.

### **References**

46 – 51

## Traumeel®

### Definition

The manufacturer<sup>(119)</sup> defines Traumeel® as a homeopathic (see previous EBPG reviews on homeopathy (click [here](#) and [here](#)) combination formulation of 12 botanical and 1 mineral substances. These include *Arnica montana* (mountain arnica), *Calendula officinalis* (calendula), *Hamamelis virginiana* (witch hazel), *Millefolium* (milfoil), *Belladonna* (deadly nightshade), *Aconitum napellus* (monkshood), *Chamomilla* (chamomile), *Symphytum officinale* (comfrey), *Bellis perennis* (daisy), *Echinacea angustifolia* (narrow-leafed coneflower), *Echinacea purpurea* (purple coneflower), *Hypericum perforatum* (St John's wort), and *Hepar sulphuris calcareum* (calcium sulfide). Traumeel® is available as drops, tablets, drinkable ampoules, ointment, gel and eardrops<sup>(119)</sup>. The indications for Traumeel® include pain conditions (acute and/or chronic pain of various origins), inflammatory conditions as well as brain injury and otitis externa. The concentration of ingredients available in Traumeel® is several times higher than those apparently available in homeopathic preparations. Hence, it is more appropriate to categorize Traumeel® as homotoxicology instead of a homeopathy form of therapy<sup>(120)</sup>. Homotoxicology is a form of therapy that uses homeopathically based remedies at enhanced concentrations with a view to eliminate toxins from the body<sup>(120)</sup>. It is strongly influenced by, but not identical with, homeopathy.

### The Evidence

A comprehensive search conducted by the Evidence Based Practice Group (EBPG) identified 20 published articles relating to Traumeel®. Five<sup>(120-124)</sup> of these were relevant to this review investigating the effectiveness of Traumeel® in treating various conditions. Two Cochrane systematic reviews did not find any evidence on the effectiveness of Traumeel® in treating chronic asthma<sup>(123)</sup> or preventing oral mucositis for patients with cancer receiving treatment<sup>(122)</sup>. One high quality systematic review did not find any evidence on the effectiveness of Traumeel® in treating minor sport injuries, chemotherapy induced stomatitis, sprains or knee hemarthrosis<sup>(120)</sup>. One low quality case control study stated that it was equivalent to NSAIDs in treating lateral epicondylitis. This study went into further detail stating that Traumeel® was significantly 'superior' in scores relating to pain at rest, joint mobility (extension) and torsional joint mobility compared to NSAIDs in treating epicondylitis<sup>(121)</sup>. **Readers should be aware that these 'superior' differences are very small.** One low quality case (with historical) control<sup>(124)</sup> found that autologous conditioned serum was significantly better than Actovegin + Traumeel® in reducing time to recovery from muscle injury. With the above in mind, the EBPG feels it is reasonable to conclude that at present (January 2006), there is no significant evidence demonstrating the effectiveness of Traumeel® in treating various conditions.

### References

119 - 124

## Watsu

### Definition

Watsu, an abbreviation of Water shiatSU was developed in Japan by Harold Dull in 1980<sup>(76,77)</sup>. It is perceived as 'floating massage' <sup>(77)</sup>. In this 'new type of therapeutic bodywork', one float in a large pool of warm water while being massaged. To date Watsu is taught at the School of Shiatsu and Massage at Harbin Hot Springs in California<sup>(78)</sup>. Registration of Watsu practitioner is also maintained at the same school<sup>(79)</sup>. It should be noted that it is only registration of practitioner without any binding regulation cited. Watsu, a form of aquatic therapy, maybe a part of Cochrane Review on the effectiveness of aquatic therapy exercise for treating rheumatoid arthritis<sup>(80)</sup>. This document has remained in protocol format since July 2001.

### The Evidence

To date there is level 5 evidence on the effectiveness of Watsu combined with other water based interventions and or physical therapy in treating chronic low back pain (1 patient)<sup>(81)</sup> and cerebral palsy (6 patients)<sup>(82)</sup>.

### References

76 – 82

## **Wobbleboard (a.k.a. ankle disk)**

### **Definition**

Wobbleboard is an exercise device being used for proprioceptive balance training, building strength in the muscles, joints and tendons of the lower body and, recently, in an adapted closed kinetic chain exercises in reducing re-dislocation of shoulder joint.

### **The Evidence**

- There was limited evidence to support the effectiveness of wobbleboard in reducing ankle sprain (presumably by increasing balance since increasing balance is one of the major benefit being promoted for wobbleboard) among those with ankle sprain previously (i.e. reinjury). On the other hand, there is strong evidence that ankle support, e.g. in the form semi-rigid orthosis or air casts in preventing ankle sprain during high risk sporting activities.
- The EBPG cannot find any safety data on wobbleboard (e.g. number of falls when using wobbleboard, esp. among those unsupervised, etc )

### **References**

114-118

## Yoga

### Definition

Yoga is a traditional Indian culture and way of life which is purported to give the practitioner a "healthy body and a sound mind" and is believed to alleviate stress and induce relaxation. The word yoga is probably derived from the Sanskrit word 'Yug' which means 'controlling the mind'. The word yoga also means to 'unite or connect' and in the higher levels of yoga this refers to the 'union of the individual soul to the universal soul'. Yoga practice may include centering and meditation, breath control, warm ups and stretching, postures, relaxation, affirmation and visualization, and meditation. The commonly performed yogic practices include breathing exercises (pranayama), postures (asanas), devotional sessions and meditation (dhyana). Many branches of yoga have been described such as hatha yoga, karma yoga, bhakti yoga and raja yoga. Transcendental meditation which is widely practiced, employs a single stage meditation during which the individual sits quietly with eyes closed for 20 minutes twice a day and mentally repeats a specifically chosen Sanskrit word or mantra. In sahaja yoga, the individuals sit in a relaxed posture with hands in front, palms upwards. They are asked to direct attention to a picture placed in front with a candle lit before it. Gradually when their thoughts recede, they close their eyes and may direct their attention at the 'sahasrara chakra' or top of his head. The individual sits in meditation for about 10 to 15 minutes. It is believed that sahaja yoga awakens the kundalini (dormant divine energy in our body) and corrects physical, mental and emotional disorders<sup>(58,59)</sup>.

To date yoga has been employed to treat various disease conditions, including chronic obstructive pulmonary disease, coronary heart disease, asthma, epilepsy, stress reduction, anxiety, panic attacks, improving self esteem, tension headache, migraine, insomnia, diabetes, multiple sclerosis, carpal tunnel syndrome, muscle weakness, myopathy, muscular dystrophy, back or neck pain other pain syndromes and other disease conditions<sup>(58-75)</sup>. With the exception of yoga for treating carpal tunnel syndrome (CTS), currently, there is no or not enough evidence on the effectiveness of yoga in treating these various disease conditions.

With regard to yoga in treating CTS, a small (51 participants) RCT was conducted in 1998<sup>(72)</sup> under the assumption that stretching in yoga may relieve compression in the carpal tunnel, better joint posture may decrease nerve compression, blood flow may be improved to the median nerve and to mobilize the median nerve within the carpal canal if it is adherent. The study showed that after 8 weeks of treatment, yoga group had an improvement in pain score Phalen sign, compared to wrist splint group (control). There was no difference with regard to Tinel sign, grip strength difference and improvement in nocturnal waking due to pain between the yoga and wrist splint group. The authors concluded that yoga has a short term beneficial effects compared to wrist splint among patients with CTS. However, it should be noted that this is a small study with a rather poor quality. The result of this study has not been duplicated elsewhere.

### The Evidence

There is not enough evidence on the effectiveness of yoga in treating chronic obstructive pulmonary disease, coronary heart disease, asthma, epilepsy, stress reduction, anxiety, panic attacks, improving self esteem, tension headache, migraine, insomnia, diabetes, multiple sclerosis, carpal tunnel syndrome, muscle weakness, myopathy, muscular dystrophy, back or neck pain and other pain syndromes.

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58 – 75

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## Appendix 1

### WorkSafeBC - Evidence-Based Practice Group Levels of Evidence (adapted from 1,2,3,4)

<b>1</b>	Evidence from at least 1 properly randomized controlled trial (RCT) or systematic review of RCTs.
<b>2</b>	Evidence from well-designed controlled trials without randomization or systematic reviews of observational studies.
<b>3</b>	Evidence from well-designed cohort or case-control analytic studies, preferably from more than 1 centre or research group.
<b>4</b>	Evidence from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled
<b>5</b>	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees.

### References

1. Canadian Task Force on the Periodic Health Examination: The periodic health examination. CMAJ. 1979;121:1193-1254.
2. Houston TP, Elster AB, Davis RM et al. The US Preventive Services Task Force Guide to Clinical Preventive Services, Second Edition. AMA Council on Scientific Affairs. American Journal of Preventive Medicine. May 1998;14(4):374-376.
3. Scottish Intercollegiate Guidelines Network (2001). SIGN 50: a guideline developers' handbook. SIGN. Edinburgh.
4. Canadian Task Force on Preventive Health Care. New grades for recommendations from the Canadian Task Force on Preventive Health Care. CMAJ. Aug 5, 2003;169(3):207-208.