

Section 4

Complementary and alternative medicine

Complementary and alternative medicine (CAM) refers to those forms of treatment which are not widely in use by orthodox healthcare professionals.

Complementary refers to those treatments that are used in conjunction with orthodox medicine.

Alternative refers to those treatments that are used instead of more conventional approaches.

Which therapies?

Robust evidence that CAMs are effective in MS is lacking. The benefits of most therapies, including acupuncture, aromatherapy, yoga and homeopathy, are based on anecdotal reports.

However, a systematic review by Huntley and Ernst¹ found that there were some therapies that were evidence-based. These include nutritional therapy, body work, psychotherapy and imagery, neural therapy, massage and reflexology. The NICE guidelines for management of multiple sclerosis in primary and secondary care² suggest that fish oils, magnetic field therapy, t'ai chi and multimodal therapy may also be of benefit.

There is also evidence that supports the benefits of mindfulness based intervention, progressive muscle relaxation technique, positivity to promote benefit-finding in MS and cognitive behavioural therapy (CBT).

Why CAM is chosen in MS

Complementary therapies are very popular with MS patients. It has been reported that between one half and three quarters of individuals with MS use CAMs in various parts of the Western world, with the majority using CAMs in a complementary way³.

A survey of 1,573 patients in Germany, found that the main reasons for the use of CAM in individuals with MS was the low level of satisfaction and the high rate of side-effects with conventional treatments, as well as brief consultation time with physicians⁴. In comparison with conventional medicine, more patients displayed a positive attitude toward CAM (44% vs 38%), with 70% reporting lifetime use of at least one method. Among a wide variety of CAM, diet modification

(41%), omega-3 fatty acids (37%), vitamins E (28%), B (36%), and C (28%), homeopathy (26%), and selenium (24%) were cited most frequently. Most respondents (69%) were satisfied with the effects of CAM. Compared with conventional therapies, CAM rarely reported unwanted side effects (9% vs 59%).

Bowling⁵ lists other common reasons for using CAM which include decreasing the severity of MS related symptoms, increasing control, improving health, and using methods that allow for the interrelation of mind, body and spirit.

Risks and benefits

Whilst some CAMs carry a low risk and can be beneficial in treating MS symptoms, others can be potentially harmful and can interact with conventional treatments for MS³.

A person with MS should be encouraged to discuss any alternative treatments they are considering and to inform their doctors and other health professionals if they decide to use any². People with MS should be encouraged to evaluate any alternative therapy themselves, including the risks, the costs (financial and inconvenience) and the perceived benefits.

They should be encouraged to visit only practitioners who are registered with the relevant professional bodies and to source supplements, for example, from reliable sources.

Therapies with limited published evidence of efficacy in MS

Bodywork

In bodywork, a therapist has a hands-on guiding role to the individual's limbs and muscles.

The use of some manipulative techniques such as chiropractic and osteopathy appears to be fairly widespread amongst people with MS⁶. There is no literature specifically focusing on these forms of manipulation in MS, but there is a single blind randomised controlled trial of Feldenkrais bodywork⁷. The intent behind this approach is to reorganise the muscular and nervous system manually, which allows for improved functioning and promotes strength, flexibility and ease of movement. Sessions last about 45 minutes and focus on a particular movement pattern which may be problematic. The therapist tries to help identify what the patient feels and then expands the range of

feeling to improve function. This approach is not unlike that of the Alexander Technique.

Craniosacral therapy has been shown to help with urinary tract symptoms. In a small prospective cohort study 28 patients showed a significant improvement in post void residual volume, lower urinary tract symptoms and quality of life⁸.

Neural therapy

This is a technique using small quantities of local anaesthetic injected into specific areas of the body, principally old scars and areas that correspond to acupuncture points. It has been widely used in Germany and Austria since 1928, mainly for problems arising from scars, but one double-blind placebo controlled trial⁹ investigated 21 patients with MS randomised into active (n=11) and placebo (n=10) groups. The active treatment was 1% lignocaine hydrochloride and placebo was 0.9% saline. Each patient received two treatments per week, consisting of injections at points into the ankles and also around the greatest circumference of the skull. There were no significant side-effects. Functional ratings at follow-up, between two and three and a half years later, showed an overall long term improvement in 59% compared with placebo. Improvement rates were similar for all forms of MS.

Massage

Massage is very popular and appears to be very helpful for some of the musculoskeletal symptoms of MS. It also seems to help general well-being. One study involved 24 patients with MS randomly assigned to either a 45 minute massage twice weekly for five weeks or to no treatment¹⁰. The massage group had significantly lower anxiety and a less depressed mood by the end of the study and had significantly improved in self-esteem, body image and image of disease progression. No conclusions however, were drawn about physical characteristics.

Abdominal massage has been shown to help constipation in a small study¹¹. 30 people with both MS and constipation were recruited then randomly allocated to a massage or a control group. The massage group participants were provided with advice on bowel management and they or their carers were taught how to deliver abdominal massage. They were recommended to perform it daily for four weeks, each session lasting 10-15 minutes. The control group received bowel management advice only. A physiotherapist visited all the participants in their own homes for the

duration of the study.

After four weeks, both groups showed improvement in constipation symptoms but the massage group improved significantly more. Participants reported that the massage was relaxing and also gave some empowerment because of self-management.

Reflexology

Reflexology involves stimulating points on the soles of the feet which are said to influence the physiology throughout the body. In one study¹², 71 patients were randomised to either reflexology treatment with manual pressure on specific points on the feet and massage of the calf area, or to nonspecific massage of the calf area only. 53 patients completed the study and there were significant improvements in the mean scores of paraesthesia, urinary symptoms, muscle strength and spasticity.

Another study involving 73 patients found a very significant (50%) reduction of pain VAS (Visual Analogue Scale) score and improved quality of life maintained over 12 weeks. However, there was no difference between the sham and real reflex-point treated group¹³. This result shows a powerful and very significant but unspecific effect which questions some of the traditional beliefs about reflexology. It is very similar to emerging evidence in acupuncture where a powerful unspecific needling effect is observed independent of precise needle point location.

Psychotherapy and imagery

One study¹⁴ followed 33 patients with MS and trained half of them in relaxation sessions involving the use of imagery, focusing on imagining the repair of damaged myelin and positive immune system responses. The control group followed their normal medical treatment. After a six week course of treatment, the imagery group had a significant decrease in anxiety but there were no changes in other psychological variables or in MS symptoms. The authors comment that this is a simple cost effective approach which can significantly reduce anxiety in people with MS.

A randomised controlled trial of group psychotherapy in MS¹⁵ showed it to be beneficial for those with mild to moderate depression, again with no change in disability scores.

Mindfulness based intervention

Mindfulness is a form of meditation whereby individuals become nonjudgementally aware of the present moment. A randomised, single-blind

controlled trial involving 150 people demonstrated that mindfulness based intervention, as opposed to usual care, improved health related quality of life, fatigue and depression for up to six months post intervention. Mindfulness training can help those with MS better cope with the unpredictable changes they may experience with the disease, as well as have a greater appreciation of the positive things that they still have in their lives¹⁶.

Progressive muscle relaxation technique

One study involving 66 patients with MS using a quasi-experimental method, provided modest support for the effectiveness of progressive muscle relaxation technique on quality of life of patients with MS compared with no intervention¹⁷.

Another study of 50 people with MS used a crossover design with a four week break between treatment phases¹⁸. It compared the effects of reflexology and progressive muscle relaxation training on psychological and physical outcomes. The Short Form 36 (SF-36) and General Health Questionnaire 28 were used pre and post each of the six week treatment phases. State Anxiety Inventory, salivary cortisol levels, systolic and diastolic blood pressure and heart rate data were collected pre and post the weekly sessions.

Positive effects were reported for both treatments. All the chosen measures, except for three SF-36 scales, recorded significant changes. Encouragingly, despite the four week break, most outcome measures did not return to their pre-treatment baseline levels.

Positivity to promote benefit finding in MS

After experiencing a stressful or traumatic event, many individuals report positive changes in their lives. This is known as benefit finding. One study of 127 people with MS, used two distinct conceptual frameworks of positive affect and optimism, examining their effects as mediators on the relationship between improved depression and enhanced benefit-finding. It found that depression improved over time with increased benefit finding, the relationship being significantly mediated by both increased optimism and increased positive affect¹⁹.

Cognitive behavioural therapy

The premise of cognitive behavioural therapy is that what people think affects how they feel emotionally and how they behave. During times of emotional

distress, the way a person sees and judges themselves may become more negative. CBT therapists aim to work jointly with the person to help them begin to see the link between unhelpful thinking styles and mood. This may empower a person to have more control over negative emotion and to bring about changes in unhelpful behaviour. CBT can be used to help people with a range of conditions including MS.

A randomised control trial where 72 patients with MS fatigue were randomly assigned to eight weekly sessions of CBT or relaxation training (RT), demonstrated that both CBT and RT appeared to be clinically effective treatments for fatigue in MS patients. The effect for CBT was greater than RT²⁰.

A systematic review of psychological interventions for MS, which searched 19 databases, found that there was reasonable evidence that cognitive behavioural approaches were beneficial as treatment and in helping people adjust to and cope with having MS²¹.

Another study which was quasi-experimental in design, evaluated the effectiveness of a cognitive-behavioural program for women with MS in which 37 women participated in a five week intervention period. It found significant improvements in the participants perceived health competence, indices for adaptive and maladaptive coping and most measures of psychological well-being. The positive changes were maintained during the six month follow up period²².

Dietary supplementation

The advice most commonly given by dieticians is to try to follow a healthy diet with low saturated fat intake, increased intake of fish and lean meats, fresh vegetables and fruit and whole grain cereals.

It might be helpful to remember that a diagnosis of MS represents to many people a total loss of control. Through diet, control of the body can appear to be regained and, in some cases therefore, dietary manipulation is undertaken as much for psychological and emotional reasons as for any other.

Nutritional therapy

There have been many attempts to link dietary pattern and the geographic distribution of MS. It appears that diets high in gluten and milk are much more common in areas with a higher prevalence of MS, but most interest has centred around the role of dietary fat. The most well known approach is the Swank Diet, recommended by Dr R Swank since

1948²³. He recommends a saturated fat intake of no more than 10g per day, a daily intake of 40-50g of polyunsaturated oils, at least a teaspoon of cod liver oil daily and a consumption of fish three or more times a week. An impressive cohort of patients was amassed and followed up for many years and very significant decrease in expected relapses and onset of disability was demonstrated. His studies have been widely criticised for lacking a control group and for inclusion criteria which are not particularly well defined and may reflect the milder end of the MS spectrum.

The emphasis on dietary fat was quite extensively investigated in at least three double-blind studies using supplementation with linoleic acid²⁴⁻²⁶. The results of these studies were quite mixed, with two showing an effect and one not, but a combination analysis suggested that patients supplementing with linoleic acid had a smaller increase in disability and reduced severity and duration of relapses compared with controls²⁷. There have been many discussions about these trials and the results are by no means unequivocally accepted. Some feel that the dose of linoleic acid used in these trials was too low.

In 2003, the NICE guidelines² recommended that 17-23g per day of linoleic acid might reduce disease progression. This amount may be consumed in many forms including full fat sunflower margarine or sunflower, safflower or sesame seed cooking oils. However, subsequent meta-analysis²⁸ has concluded that there was no major effect on disease progression.

Many people with MS supplement their diet with evening primrose oil or flax seed oil. Again there is debate about a reasonable dose, but it does seem that there is some evidence that a diet high in essential fatty acids is helpful in slowing the onset of disability in MS.

Dietary manipulation and supplementation is the kind of approach taken by naturopaths. The literature is well reviewed by Murray and Pizzorno²⁹ and most particularly, by Bowling and Stewart³⁰.

Claims that food allergies may be present in MS have not been upheld by research. Private allergy testing is often expensive and real food allergies are rare in adults. However, if allergies are suspected, testing at an expert NHS centre is recommended.

St John's wort

Clinical trials and meta-analyses^{31,32} provide support that St John's wort is efficacious in the treatment of mild to moderate depression. Whilst St John's wort appears safe and tolerable, it can potentially interact with other medications including anticonvulsants, warfarin, antidepressants and oral contraceptives³.

Echinacea and other "immune-stimulating" supplements

Claims that individuals with MS should sometimes take echinacea and other immune stimulating supplements is incorrect and potentially dangerous. The effects of medications, such as methotrexate and interferons, on liver function can be increased by echinacea³.

Vitamin D

There is a high level of interest in vitamin D and its potential benefits in MS.

As well as the advantages of treating osteopenia and osteoporosis to which MS patients are prone, it could potentially have a preventative and disease modifying effect. Additionally, low vitamin D levels have been linked to the potential development of MS, increased relapse rate and more severe disability³.

Vitamin D is generally thought to be safe but there are also some concerns that high doses could cause hypercalcaemia in the long-term. Daily recommended doses are based on the effective treatment of rickets. There is no consensus on the appropriate amount to take in MS.

Low dose naltrexone (LDN)

It has been claimed that low doses of naltrexone, an opiate receptor antagonist which is used in opiate addiction, can be beneficial in MS. There are anecdotal reports of symptomatic benefits and improvements in quality of life. LDN is thought to increase endorphin levels by stimulating the immune system.

An Italian pilot study involved 40 people with primary progressive MS. Participants received 4mg of LDN for six months, with researchers looking primarily at safety but also at the effect on spasticity, pain, fatigue, depression and quality of life. The results showed LDN was safe and well-tolerated. There was a significant reduction of spasticity during the trial, but half the participants reported an increase in pain. There were no

significant changes to measures of fatigue, depression or quality of life³³.

The University of California in San Francisco (UCSF) has studied the effects of LDN on quality of life in 80 people with MS. Results showed LDN significantly improved quality of life (specifically mental health, pain, and self-reported cognitive function) as measured by the MS Quality of Life Inventory. However, no impact was observed on symptoms such as fatigue, bowel and bladder control, sexual satisfaction, and visual function. Vivid dreaming was reported during the first week of treatment, but no other adverse effects were reported³⁴.

LDN appears to be well tolerated and generally safe, but the trial results have been variable and inconsistent. Additional studies are required to establish safety and efficacy³.

As LDN stimulates the immune system, it should not be taken by people also taking immunosuppressant drugs, or other drugs that reduce the activity of the immune system such as steroids.

CAM therapies with only anecdotal evidence of benefit for people with MS

Acupuncture

In its oldest form, acupuncture is a form of traditional Chinese medicine. Traditional Chinese physiology describes the running of energy ('Chi') in meridians which are believed to course just below the surface of the skin over the whole body. The insertion of very fine needles into these meridians at pre-defined points is held to rebalance blocked or excessive energy flow and so cure symptoms. It is complicated to learn this sort of approach.

There is a simpler and more readily available Western form of acupuncture, which relies on the phenomenon that inserting a needle into a painful muscular trigger-point seems to deactivate the point and the pain which radiates from it.

There are very few controlled trials of acupuncture in MS. Clinical experience suggests that acupuncture is very helpful for some people, particularly in relieving cramps, spasms and bladder symptoms. A small study compared minimal acupuncture with Chinese acupuncture and found minimal acupuncture significantly more effective. No other statistically significant difference between the groups was found. No major adverse events were

noted³⁵. A recent case report found acupuncture helpful for MS related fatigue and weakness³⁶.

One very small study³⁷ did suggest that acupuncture has a role in helping spasticity. Another small uncontrolled study demonstrated a significant reduction (60%) in urinary urge frequency after electro-acupuncture which was similar to treatment with tolterodine³⁸.

Aromatherapy

Six percent of 848 patients with MS, who responded to a mail survey in British Columbia³⁹, used aromatherapy to help manage their condition. However, there are no scientific studies supporting the use of aromatherapy.

There is no doubt though, that many people feel it is a worthwhile therapy, perhaps because of its effect on mood and its possible promotion of sleep. One author however⁴⁰ feels that aromatherapy cannot be recommended in the treatment of any form of neurological disease until more studies are available.

Yoga

Yoga uses a combination of physical postures, breathing exercises, relaxation and meditation to try and reach optimal physical and mental health. There are few studies in MS, but many anecdotes reinforce the view that deep relaxation and the strengthening of muscle control which can be achieved using yoga can be extremely beneficial for people with MS. Oken carried out a randomised controlled trial of weekly Iyengar yoga and exercise in 69 people with MS. Significant improvements were seen in measures of fatigue and quality of life in the yoga and exercise groups compared to the control but no effects on mood or cognitive dysfunction were reported⁴¹.

Homoeopathy

Homoeopathy is a complementary medical system which uses preparations of substances whose effects, when administered to healthy subjects, correspond to the manifestations of the disorder in the individual. It was developed by Samuel Hahnemann (1755-1843) and is now practised throughout the world. Recent large-scale meta-analyses of randomised controlled clinical trials of homoeopathy^{42,43} have confirmed activity over placebo in a wide range of conditions. In the UK, there are only a small number of homoeopathic hospitals in the NHS yet homoeopathy is widely

used by people with MS. There are no clinical trials of homoeopathy in MS in the literature although there are case reports of improvements in symptoms⁴⁴ and wide clinical experience.

Case study, anecdotal and clinical experience suggest that homoeopathy is extremely effective for some symptoms such as spasms, bladder problems and diplopia experienced by those with MS. Long term homoeopathic treatment does seem to help some symptoms, both physically and psychologically⁴⁵.

Hyperbaric oxygen therapy

Hyperbaric oxygen therapy (HBO) involves breathing oxygen through a mask in a pressurised chamber. Treatment regimens vary slightly but usually consist of an initial course of around 20 treatments, each lasting an hour, spread over one month. Follow up treatment is then needed at less frequent intervals. Those who practise this therapy report improvement both in bladder symptoms and fatigue.

Case reports of benefit following HBO therapy in people with MS, and positive effects of HBO in experimental allergic encephalitis (the animal model of MS) led to clinical investigations in people with MS.

A systematic review assessed the evidence from 14 controlled trials of HBO therapy in people with chronic MS⁴⁶. Six of the trials identified were excluded from the review as they were of poor methodological quality according to pre-defined criteria. Of the eight remaining trials, one reported a positive result and seven reported negative results for HBO therapy. The authors of the review concluded that: 'We cannot recommend the use of hyperbaric oxygen in the treatment of MS.' However, it should be noted that there are approximately 50 MS therapy centres around the UK where this therapy has long been available and it continues to prove popular with many people with MS.

The role of health professionals in CAMs

Some health professionals may not feel comfortable with discussing CAMs with patients due to lack of knowledge or because they feel cynical about CAMs. Nevertheless individuals with MS do use and will continue to use CAMs. It is important that potentially beneficial therapies are not dismissed, particularly when there is evidence to support their use. However, it is equally important to balance this against those therapies that can be harmful, can interact with or may be used instead of conventional treatments, particularly if this means that disease

activity may increase as opposed to being reduced.

Health professionals should at least be aware when individuals are using CAMs, encouraging them to discuss the risks versus benefits with their neurologist or MS nurse.

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MS Trust resources

Diet factsheet

Low dose naltrexone (LDN) factsheet

Vitamin D factsheet

Exercises for people with MS

www.mstrust.org.uk/exercises**Further reading**

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We hope you find the information in this book helpful. If you would like to speak with someone about any aspect of MS, contact the MS Trust information team and they will help find answers to your questions.

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