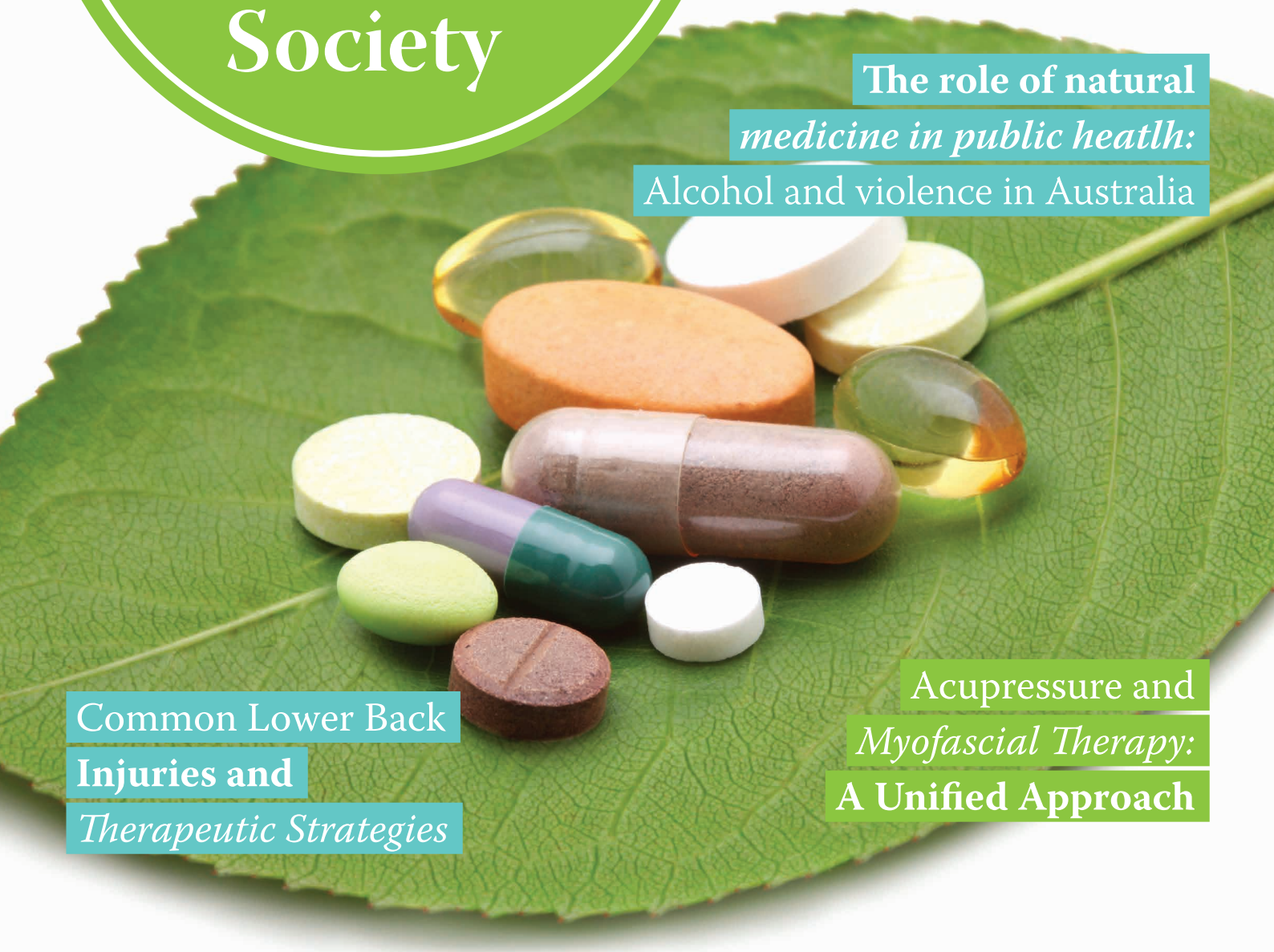
Journal of the
Australian Traditional Medicine Society

Volume 20 | Number 2 | Winter 2014

Constipation *and its Management* **Using Homoeopathy**

The role of natural ***medicine in public heatlh:*** Alcohol and violence in Australia



Common Lower Back **Injuries and** *Therapeutic Strategies*

Acupressure and *Myofascial Therapy:* **A Unified Approach**

Multivitamins Nutritional Insurance: *Are multivitamins beneficial or of no use?*

Russell Setright

ISSN 1326-3390

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Australian Traditional Medicine Society

Volume 20 | Number 2

Contents

WINTER

ATMS

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ATMS HAS THREE CATEGORIES OF MEMBERSHIP
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LIFE MEMBERS
Dorothy Hall* - bestowed 11/08/1989
Simon Schot* - bestowed 11/08/1989
Alan Jones* - bestowed 21/09/1990
Catherine McEwan - bestowed 09/12/1994
Garnet Skinner - bestowed 09/12/1994
Phillip Turner - bestowed 16/06/1995
Nancy Evelyn - bestowed 20/09/1997
Leonie Cains - bestowed 20/09/1997
Peter Derig* - bestowed 09/04/1999
Sandi Rogers - bestowed 09/04/1999
Maggie Sands - bestowed 09/04/1999
Freida Bielik - bestowed 09/04/1999
Marie Fawcett - bestowed 09/04/1999
Roma Turner - bestowed 18/09/1999
Raymond Khoury - bestowed 21/09/2002
Bill Pearson - bestowed 07/08/2009

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LOCATIONS

QLD

Caloundra	Thursday 26th June
Noosa	Friday 27th June
Hervey Bay	Saturday 28th June
Rockhampton	Monday 30th June
Toowoomba	Tuesday 1st July
Mackay	Wednesday 2nd July
Townsville	Friday 4th July
Cairns	Saturday 5th July
Gold Coast	Friday 11th July
Brisbane	Sunday 13th July

NSW & ACT

Ballina	Saturday 28th June
Coffs Harbour	Sunday 29th June
Port Macquarie	Tuesday 1st July
Kingscliff	Thursday 3rd July
Parramatta	Saturday 5th July
Manly	Sunday 6th July
Newcastle	Monday 7th July
Forresters Beach	Wednesday 9th July
Leura	Thursday 10th July
Batemans Bay	Friday 11th July
Canberra	Saturday 12th July
Wollongong	Sunday 13th July
Cronulla	Monday 14th July
Sydney	Sunday 20th July
Albury	Friday 25th July

VIC

St Kilda	Saturday 19th July
Glen Waverley	Monday 21st July
Geelong	Tuesday 22nd July
Albury	Friday 25th July
Melbourne	Sunday 27th July

TAS

Hobart	Thursday 3rd July
Launceston	Friday 4th July

SA

Barossa	Friday 25th July
Adelaide	Saturday 26th July

WA

Perth	Sunday 13th July
Bunbury	Monday 14th July
Albany	Tuesday 15th July

NT

Darwin	Tuesday 15th July

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Session 1	3:00 to 4:30 pm
Break	4:30 to 5:00 pm
Session 2	5:00 to 6:30 pm
Dinner	6:30 to 7:30 pm

SPEAKERS

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"The recent IBIS research report into natural medicine indicates that last year around 3.8 billion dollars was spent on natural medicine services, which is expected to increase by 5% per annum."

President's *Message*

Maggie Sands | ATMS President *Life member number 28*

Dear Friends and Colleagues,

As we approach the half way mark for 2014 it's a great time to reflect on our own personal health status as natural medicine practitioners. Having recently returned from my favourite rejuvenation retreat in Thailand my faith in the philosophy of natural medicine is again confirmed. As practitioners we are often advising our clients, family and friends to have a balanced lifestyle, eat well, exercise and take time out to smell the roses. It never ceases to amaze me how quickly a tired body will respond in a healing environment inclusive of nature, space, moderate exercise, a healthy diet and of course a few natural medicine modalities like massage and herbal medicine.

It is a year since I stepped into the role of President for the ATMS, having served as a director for some 26 years previously in various positions. ATMS is unlike other natural medicine associations in that its depth and breadth of membership is vast, covering some 30 modalities. As ATMS continues to grow so does the workload. Myself and our CEO, Trevor Le Breton, work tirelessly for the organisation and our members.

In May our CEO and I visited Perth and hosted two events for members in Western Australia. We have approximately 350 members across numerous modalities in WA and I thank those ATMS members who attended the events as some had travelled long distances, reminding me we have members in the majority of small towns across our great land. It was a pleasure for me personally to connect with our WA members, several having been accredited members for almost three decades. We also took the opportunity to visit several teaching institutions in Perth. Once again this visit has confirmed that natural medicine practitioners throughout Australia have passion and a strong belief in what they do and the part they play in health care.

The CEO and I hope to be moving around the country to meet our members and assist members to have a better understanding of their society and to enable members to ask questions and be more informed about current events in our industry.

We live in rapidly changing times and I would like to reflect on the past and the future of natural medicine as I believe we are moving into heightened acceptance by the general public in regard to the services we offer. Just a reminder - ATMS is having its 30th anniversary on 7th September this year and the Board and myself hope you will join us for the celebration. Seats are limited so I encourage you to book early when the date is released. All members are welcome, including both newer and long-standing members. You don't need anyone to attend with you so please come along as you will be with like-minded people and friends.

It is predicted that Australia will have a workforce shortage in the health sector in as soon as five years. The government has already identified a predictable shortage of aged care workers and nurses. Reliable information advises that there will not be enough skilled workers in these industries to meet the need particularly for our country's rapidly ageing baby boomers. For more info regarding this trend visit **www.youtube.com/watch**?v=ll03gB0TbtE. What has not been identified by the government is the anticipated shortage of natural medicine practitioners in approximately 5-10 years. The recent IBIS research report into natural medicine indicates that last year around 3.8 billion dollars was spent on natural medicine services, which

is expected to increase by 5% per annum. The report indicates that in 2018-19 it is highly probable that this annual spend will increase to around five billion dollars per annum. With these figures in mind and with the anticipated workforce shortage of natural medicine practitioners we may be moving into a very different era for our industry. Many ATMS members reading this will be nearing or at retirement age, as currently ATMS has approximately 3500 members over the age of 50 years. Many of our pioneer members who trained in the 1980s still work full time in their practices. If you are a member reaching retirement age I strongly encourage you to continue in your practice even if on a reduced scale as there are predicted shortages expected, especially in the modality of remedial massage.

R to L Maggie Sands with Thai massage therapists Ms Ta , 61 years old with 25 years experience and Ms Song, 46 years old with 15 years experience.

While in Perth I was asked by a naturopathic member, who initially joined in 1984, the year ATMS commenced, whether she was too old to be in practice at 76 years of age. I was delighted to respond that her wisdom and knowledge are assets to our industry, that she can practise as long as she is able and is enjoying her clinical practice. I was also surprised as the member certainly had a youthful approach to life and was an example of how a healthy lifestyle can support the ageing process.

With numerous smaller colleges closing nationally due to reduced students entering the industry there may come a time when filling placements for practitioners is not an easy process.

Your Board is aware of this situation and is looking at options to support members who may be reducing their practice and/or retiring.

Your Board continues to explore other benefits that can be offered to our members. There is so much going on all the time that the Board maintains its focus on forward thinking, growth and sustainability. On a daily basis the CEO, myself and the Board work on a very wide range of issues. One thing is for sure: we are never short of things to do.

Hopefully you have noticed that there is a wider choice of continuing education options. This is a growth area for ATMS and over the next twelve months more and more options will be offered. As you can imagine, with 12,000 plus members all having to do a mandatory 20 points per annum to maintain their health fund status, this is a huge task. A timely reminder that members are being audited at random, just as ATMS itself will be audited as a requirement by health funds. Plan ahead, ensuring you have obtained your 20 points by 30 June each year. Visit the ATMS website for information regarding CE points as there are options that are at no cost.

I look forward to meeting members personally as the CEO and I visit a variety of locations around Australia. If you would like to contact me please email **Maggie.Sands@atms.com.au.**

"It never ceases to amaze me how quickly a tired body will respond in a healing environment inclusive of nature, space, moderate exercise, a healthy diet and of course a few natural medicine modalities like massage and herbal medicine."

In closing I leave you with these words:

Vision is the art of seeing what may be invisible to others.

My very best wishes to you all,

Maggie Sands/ATMS President/
Life member

"Health spending is currently 4.1% of GDP, but the Productivity Commission recently estimated that, without changes to Government policy, over time this would rise to 7%. "

CEO's *Report*

Trevor Le Breton | Chief Executive Officer

Welcome to the Winter 2014 edition of JATMS.

Budget 2014 – the winners and the losers

Government debt was one of the fiercest topics of debate in the lead-up to the 2013 federal election. While Australia compares favourably with most developed countries in this area, long term projects raise some cause for concern. Budget deficits are forecast over the next three financial years. Health is a key area of spending growth. Health spending is currently 4.1% of GDP, but the Productivity Commission recently estimated that, without changes to Government policy, over time this would rise to 7%.

In releasing the budget Treasurer Hockey stated that the Government would continue to support the most vulnerable in the community. However, all Australians will need to make a greater contribution to the cost of their own health care. Cuts to some medical professionals and medicines are expected to reduce government expenditure. A more surprising and positive change has been the creation of the $20 billion Medical Research Future Fund (MRFF).

Much has been said about the budget announced by Treasurer Hockey, and by the time this Journal reaches you we will know whether the proposed changes to the proposed $7 co-payment General Practitioner levy have been passed or whether the opposition has blocked the new measures. For natural medicine practitioners the introduction of such a levy to attend the GP may have a positive impact for our members. The general public will have to think whether they can afford the additional cost of attending the GP or whether they would rather visit a Natural Health Professional who won't be charging additional fees for their services. As reported in the last journal growth of our industry is around 4-5% per annum, the population is ageing, more are wanting to try natural medicine and for most they won't be able to afford the additional fee.

Additionally, the pause in indexation of some Medicare Benefits Schedule fees and the Medicare Levy Surcharge may well prompt a higher private health insurance take-up.

On the education front, the Federal Government will remove the 20% loan fee applied to VET fee help loans, which are provided to eligible full fee paying students in higher level vocational education and training. Removing the loan fee on VET fee help loans will strengthen demand for vocational qualifications, as it will significantly reduce applicable repayments.

I only hope that, if this measure is passed, the money raised from the levy finds its way into the Medical Research Future Fund, and the fund is used to assist in the research so needed in many of the modalities in which we presently practise, to ensure that government and health funds support the safety, efficacy and cost effectiveness of natural medicine and we work collaboratively to find treatments and cures for health conditions such as dementia, heart disease, cancer and diabetes through research. The proposed changes are not due to commence until July 2015. In this time ATMS will be working on the savings that natural medicine can make to the overall health budget and this will be our message to Canberra.

Election for New Directors - Have your say

ATMS is about to embark on only our second member election of Directors. This will see up to seven vacancies on the Board. The following existing

Directors terms expire at the 2014 AGM: President Maggie Sands, Vice President David Stelfox and Bill Pearson. There are another four vacancies on the Board as we presently have only eight active Directors.

Call for nominations to the Board will be made on **1 August** and nominations close on **Thursday 21 August 2014.**

Candidates for the seven vacant positions will be announced on **1 September** and voting will commence on **1 October** and remain open until **20 November 2014.**

The new Board of Directors will be announced at the AGM to be held in Sydney on **30 November 2014.**

Watch the website for further details.

Constitution

I was delighted to be in attendance at the Extraordinary General Meeting of members held on 26 March 2014 which voted to adopt our new Constitution. The adoption of the new Constitution was the culmination of 16 months tireless work by the Board and management and the new Constitution was effective from this date.

The significant benefits to the Society and its members can be summarised, as follows:

- A more responsive and contemporary governance structure
- A more flexible and agile organisation that can embrace best practice and changes in the environment
- Consolidation of operation and procedural matters in By-Laws and Policies
- Greater member opportunity to be part of formal governance structures.

AGM Date announced

One of the operational benefits of the new Constitution is the additional time that ATMS has to meet its requirements to hold its AGM within 5 months of the end of the financial year. Traditionally this has always been in September and while in 1984 the volume of work to prepare for our financial audit did not impact on achieving a September AGM date, today in 2014 that is much different. Due to this change we will be able to undertake the audit over a longer period and in doing so reduce our audit costs. At the April Board meeting the Board resolved to hold the AGM on Sunday 30th November 2014 at a venue to be announced in Sydney.

Membership renewals

The annual membership renewal process will once again commence. At its June meeting the Board agreed to increase membership fees by 3.5% or an average of approximately $7. As we continue to keep an eye on costs we will be emailing your membership renewal to you rather than mailing as in previous years. This initiative will save the Society considerably and speed the process of renewals. We thank you for your ongoing support by being a member; we have a great 2014-15 in store for members.

Health Funds and Associations

It is timely that I remind members that the recently introduced changes to eligibility to be recognised by the health funds have been introduced by the funds themselves and not as some would have it by the ATMS. We have now advised colleges throughout Australia for their understanding the guidelines for qualification eligibility.

In some recently released private health fund's statistics, over 55% of the population have some form of policy. Revenue to funds for the year increased by 7.5% whilst benefits paid to members increased by 10.2%. There was an increase of 75,283 people with ancillary coverage in the March 2014 quarter. The largest increase in coverage was 15,283 for people in the 30-34 age groups.

Since the last journal ATMS has removed six members from the membership due to breaches of the Code, and have requested a further 15 to undergo a re-education program.

CE Audit

By now those members randomly selected for an audit of their Continuing Education (CE) activity will have received the necessary instructions on how to provide the information to ATMS for acceptance. Recently at the April Board meeting the Board agreed to extend the audit in 2014 to members who specifically do not hold a Health Training Package qualification.

Some 1,000 members in this category have been chosen to ensure that whilst they have qualifications which pre-date the introduction of the Health Training Package that, like all professionals, they are also maintaining their 'agreement' with both ATMS and the health funds towards their ongoing professional development.

As all members know, compliance with CE is a mandatory requirement for accredited membership. It is also a condition which enables the Society to forward practitioners' details to a health fund. On renewal of membership each year, members are asked to tick a box stating that they will comply with this requirement.

The failure to achieve this requirement may lead to your membership privileges being revoked.

As always for further information on any issue call me on 1800 456 855 or send an email to **trevor@atms.com.au**

On behalf of all the team at Meadowbank, I thank you for your ongoing support and we value your membership.

Take Care …

Trevor Le Breton | CEO
MBA, BBus (Marketing), GAICD, Dip OHS

The Setright Letter

Multivitamins Nutritional Insurance: Are multivitamins beneficial or of no use?

Russell Setright

An Independent review of Complementary Medicine Evidence

Russell Setright is an accredited Naturopath, Medical Herbalist, and an educator in Advanced Life Support, First Aid, Emergency Care and Rescue. He was registered in the Northern Territory under the Health Practitioners and Allied Professionals Registration Act in 1986 and was the Editor in Chief of the Journal of Health Sciences. Russell is also the past Dean of Naturopathic Medicine and Fellow at the Academy of Natural Therapies. He chaired the Symposium at the International Conference On The Use of Traditional Medicine and Other Natural Products In Health Care at The School of Pharmaceutical Sciences, University of Science Malaysia where he also presented his paper and was appointed to the Panel of Consultants at The Nury Institute of Family & Child Development, Malaysia. Russell is the author of seven books on complementary medicine with one published in the Chinese and Malay languages and he currently has a Health Talk Back Radio Show with Brian Wilshire on Sydney's Radio 2GB, Leon Byner on 5AA Adelaide and Richard Perno in Country NSW.

Introduction

Taking multivitamins is said to help the immune system, improve memory, enhance wellbeing, and reduce risks of Autism Spectrum disorder, cancer, birth defects, cataracts and macular degeneration. Some have stated that taking vitamins in any form is a waste of money and there is no evidence that they are beneficial to health. These are big statements, but is there any evidence to support the use of multivitamins?

There are many studies that have found supplementation with single vitamins and/or minerals is beneficial in reducing the incidence of some diseases and/or adverse health conditions: for example, fluoride for dental health, iodine for children's intellectual development, folic acid for the prevention of certain birth defects, calcium for bone health to name but a few. However, the statement, 'There is NO evidence to support multivitamins use', still persists.

A literature search was undertaken on the use of vitamin/mineral combinations (multivitamin formulas) and their effect on health. Following are a few examples of clinical trials and studies that have reported the positive effects of multivitamin supplementation.

Immune function

Basically there are two types of immune functions: our adaptive immune system, which is activated when we mount a defence against a new invader and then retain antibodies and memory for immunity in the future; and our innate immune system, the almost immediate reaction your body has, for instance, when you get a cut or a skin infection.

In primates, this action of 'turning on' an optimal response to microbial attack only works properly in the presence of adequate vitamin D.

The benefits of improved nutrition by the use of multivitamin and mineral supplementation on immune function and general wellbeing have been demonstrated. A study found that supplementation with a multivitamin containing the B group of vitamins, vitamins C and E + selenium slowed the progression of the HIV virus by half in the first two years.[1]

Previous studies have also found that HIV progression is slowed in those taking a multivitamin mineral formula compared to placebo.[2] However, this is the first trial to look at early intervention, that is, before HIV infection has progressed to AIDS. The authors of the study stated that immune system support given by multivitamin + selenium combination could explain the statistically significant benefit in the reduction of HIV progression to AIDS.

Cancer

There are many types of cancer. The most common causes are thought to be immune suppression, free radical disease, poor diet, or toxic substances. However, most cancers have one thing in common. Cancer cells form tumours that destroy or compress other normal tissues. These malignant tumours are characterised by unrestrained cell growth and can spread to other parts of the body (metastasis). Up to 25% of Australians may develop some type of cancer; however, it is important to remember that cancer is a word, not a death sentence. Early detection and prompt treatment combined with a good diet and improved lifestyle can make the difference between health and disease.

The Physicians' Health Study (PHS) II, of 14,641 male health professionals who were randomly assigned to receive a daily multivitamin or placebo has repeated previous findings that vitamin supplement users receive a number of important health benefits. The study found that a daily multivitamin use may reduce the risk of developing cancer by 8% and although no significant reductions were observed for major cardiovascular events, including heart attack and stroke, the study did find that among a smaller number of multivitamin users who already had cardiovascular disease at the start there was a significant reduction, by 44%, in the risk of dying from a heart attack.[3]

Multivitamin supplementation may also help protect women from certain cancers. A study of 7,728 women who developed invasive breast cancer was undertaken and a comparison of mortality rates revealed that women with invasive breast cancer who took multivitamin/mineral supplements were 30% less likely to die from their cancers than women with invasive breast cancer who had not taken the supplements.[4]

Another study of 1,100 current and former smokers found that those supplementing with multivitamins had a 43% reduction in gene suppression/damage (gene methylation) in the airway epithelium that can be caused by smoking. This gene suppression is associated with the development of cancer.[5] According to the authors, the study is further evidence that nature-identical, synthetic micronutrients in multivitamins can be as effective in disease risk reduction as micronutrients from vegetables and fruits.

The authors of an animal study concluded that 'multivitamin and mineral supplements synergistically contribute to the cancer chemo-preventative potential, and hence, regular supplements of multivitamins and minerals could reduce the risk of colon cancer.[6]

Memory and Alzheimer's Disease (AD)

Alzheimer's disease accounts for around 50% of all senile dementia and without doubt, as we grow older, this form of

dementia is the most dreadful. This disease is distinguished by a steady and progressive loss of memory due to the deterioration of brain function and wasting. This deterioration is associated with the presence of tangles of fibres and plaques within the brain nerve cells.

Alzheimer's disease may begin from 40 years of age but is most likely to affect individuals over 50 years. Over the years there has been a better understanding of this disease, but with all our modern technology and knowledge, modern medicine still has no answer to its treatment and/or cause. There are many theories regarding the cause of Alzheimer's disease, ranging from genetic deficiencies to slow acting viruses, and although these may indeed have merit, nutritional deficiencies and toxic mineral accumulation over the years may be the key to the cause of both Alzheimer's disease memory loss and other types of senile dementia.

Studies have found that multivitamin supplementation may improve memory, mood and general wellbeing. A systematic review of randomized controlled trials was performed and a meta-analysis of ten studies was undertaken. The results found that supplementation with multivitamins were found to enhance immediate free recall memory.[7]

In a cross-sectional and prospective study of dementia among people 65 years or older, participants were assessed from 1995 to 1997 for prevalent dementia and AD, and again in 1998 to 2000. Supplement use was ascertained at the first contact. The authors concluded that the use of vitamin E and multivitamin supplements containing vitamin C in combination is associated with reduced prevalence and incidence of AD. Antioxidant supplements merit further study as agents for the primary prevention of AD.[8]

Wellbeing

The effects of multivitamins are most often researched in the elderly. However a study that looks at multivitamin mineral supplementation and psychological functioning in healthy middle aged adults shows how a proprietary multivitamin and mineral supplement improved mood and mental performance while also reducing stress, mental tiredness and fatigue in healthy males.

In a randomized, double-blind and placebo-controlled study, 215 men in full-time employment aged between 30 and 55 were given either a multivitamin or a placebo for a period of 33 days. The intervention group reported significantly improved ratings of general mental health, reduced subjective stress and increased ratings of 'vigour', with a strong trend towards an overall improvement in mood.[9]

Another study found that vitamin and mineral supplements can enhance mental energy and well-being not only for healthy adults but for those prone to anxiety and depression.[10]

Autism Spectrum Disorder

The term 'Autism Spectrum Disorder' (ASD) includes Autism/Autistic Disorder, Asperger's Syndrome and Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS). ASD often causes individuals to struggle to understand and relate to other people and to their environment and this can often result in extreme behaviour, which can be seen as tantrums in children or rudeness in adults. It is the only way they have to indicate how anxious they are feeling.

Supplementing with multivitamins peri-conventionally may help reduce the incidence of ASD. A study by researchers at the UC Davis MIND Institute[11] found that women who reported not taking a daily prenatal multivitamin immediately before and during the first month of pregnancy were nearly twice as likely to have a child with ASD as women who did take the supplements, and the associated risk rose to seven times as great when combined with a high-risk genetic make-up.

"Onset of macular degeneration has been associated with long-term exposure to sunlight, smoking and a lack of important dietary antioxidants."

Macular Degeneration

The most common cause of blindness in Australia is macular degeneration (MD), with 12,000 cases of late stage MD diagnosed each year. MD affects twice as many women as men. The symptoms of MD include blocked central vision or empty spaces, straight lines appearing distorted or wavy, and colours becoming hard to distinguish. MD usually affects people over the age of 50 years and its onset has been associated with long-term exposure to sunlight, smoking and a lack of important dietary antioxidants including vitamins C and E and the minerals zinc and copper. Studies have found that supplementing with a combination of the above antioxidants can reduce the incidence of the disease by up to 25% and may reduce the progression of the degeneration resulting in vision loss by around 19%. There is also positive emerging epidemiological and clinical data for the carotenoids lutein and zeaxanthin and for omega-3 fatty acids.[12 13 14]

Cataracts

A cataract, or a clouding on the lens, is a problem that affects people as they grow older. Vision is affected and the eyes can have a watery look. The word comes from the Greek for 'falling water'. The cause is not fully understood but it

is believed that free radicals can be one of the causes. It is more common for cataracts to develop in elderly people. Research has found that supplementing with antioxidant nutrients (beta-carotene, vitamin E and C) may reduce the occurrence of cataracts.

Daily multivitamin supplement use over a long period was found to lower cataract and age-related macular degeneration risk in men, The study was part of the *Physicians' Health Study II* and was a randomized, double-blind study from 1997 to 2011 of 14,641 U.S. male doctors age 50 and older.[15] Fifty per cent took an antioxidant formula and multivitamin supplements daily. The other half took a placebo. The results showed a 9% to 13% decrease in risk of developing cataracts for those who took the supplements.

Birth Defects

There are a number of factors that contribute to an increased risk of birth defects. These include nutritional status of the parents, sex of the infant, birth weight, and environmental factors. It is more probable that birth defects are caused by a combination of these factors, all of which should be modified in our endeavour to reduce the problem.

A number of studies examining the effect of multivitamin supplementation on the incidence of children born with certain birth defects have been undertaken. One of these examined the incidence of cleft palate and supplementing with multivitamins. Eighty-six cases and 172 controls were enrolled. The results found that mothers who took a vitamin supplement were significantly less likely to have a child with cleft palate.[16]

Another study was undertaken to determine the association between prenatal multivitamin supplementation and congenital genitourinary tract anomalies.[17] In this study a total of 46,850 births were registered and 122 (26/10,000) of them were identified as having a genitourinary tract anomaly. The results found that prenatal multivitamin supplementation during the first, second, and third trimesters of pregnancy were associated with a reduction in the risk of these anomalies. The authors of the study concluded that maternal prenatal multivitamins may reduce the risk of congenital genitourinary tract anomalies, not only during the first 8 weeks of gestation but also later in pregnancy.

Spina bifida, one of the most prominent neural tube defects, is a congenital birth defect that affects more than one in 2,000 babies. During the third and fourth weeks of embryonic life, the neural groove, which runs along the back of the embryo, fuses to form the neural tube, the forerunner of the central nervous system. If the neural tube in the spine does not fully close during the prenatal period, the spinal cord remains unprotected and may result in protrusion of part of the contents of the spinal canal through this opening. There are three forms of the condition, ranging from very slight to very severe.

Multivitamins containing folic acid appear to be more effective at preventing neural tube defects than high dose folic acid supplements, It concludes that multivitamins should contain between 0.4 - 0.8 mg of folic acid for pregnant women to prevent neural tube defects and some other congenital abnormalities.[18] Randomized two-cohort controlled trials showed that peri-conceptional multivitamin supplementation can reduce the occurrence of a number of structural birth defects. The first intervention trial was a randomized controlled trial involving 2,819 participants supplemented with multivitamins containing 0.8 mg of folic acid, and 2,683 unsupplemented participants. The second trial was a two-cohort controlled trial involving 3,069 participants supplemented with the same multivitamins, and 3,069 unsupplemented participants.

A comparison of these results found multivitamins containing 0.8 mg of folic acid were more effective for the reduction of neural-tube defects than high dose folic acid supplements. Also, only multivitamins were able to reduce the prevalence at birth of obstructive defects of urinary tract, limb deficiencies and congenital pyloric stenosis. Folic acid was effective in preventing some part of rectal/anal stenosis/atresia, and high doses of folic acid had an effect in preventing some orofacial clefts. The authors concluded that the findings are consistent that peri-conceptional multivitamin and folic acid supplementation reduce the overall occurrence of congenital abnormalities in addition to the demonstrated effect on neural-tube defects,

Multivitamins and Cardiovascular Disease Prevention

Cardiovascular disease (CVD) is the largest killer of Australians, yet one of the most preventable. There is no doubt that lifestyle and diet play a significant role in the prevention of cardiovascular disease but can supplementing with multivitamins help prevent it?

A study was conducted with 1708 patients aged 50 years or older who had had myocardial infarction (MI) at least 6 weeks earlier and had serum creatinine levels of 176.8 mol/L (2.0 mg/dL) or less.[19] Patients were randomly assigned to an oral, 28-component, high-dose multivitamin and multimineral mixture or placebo. The results showed that high dose multivitamin supplementation benefits were not statistically significant and reported no evidence of harm or adverse events.

In another study, with US male physicians as subjects, taking a daily multivitamin was found not to reduce major cardiovascular events, MI, stroke, and CVD mortality after more than a decade of treatment and follow-up.[20] All-cause mortality was only slightly (not statistically significantly) reduced. Further analysis showed that the small

number of multivitamin users with CVD at the study's start were significantly less likely to die from a heart attack, with a 44% reduction in risk. The authors of the study acknowledge that multivitamins may play a role in populations with nutritional deficiencies, and the study results are not representative of the large number of people with marginal intakes of various vitamins and minerals.

Reported Negative studies

The Women's Health Initiative clinical trials were reported negatively in the media. However, the report was misleading as the results of the study were mostly not statistically significant. The results found those who supplemented with multivitamins had a small reduction in the incidence of all the diseases studied. Also in this study, there was a modest inverse association between use of stress-type multivitamins and stomach and kidney cancer and an inverse association of multivitamins without minerals and stomach cancer.[21]

Another study published in July 2011 in the European Journal of Nutrition set out to prospectively evaluate the association of vitamin/mineral supplementation with mortality from cancer, cardiovascular conditions, and all-causes.[22] Reports said that the study found significantly increased risks of cancer and all-cause mortality among baseline non-users who started taking supplements during follow-up. However the authors stated, 'This may suggest a "sick-user effect", which researchers should be cautious of in future observational studies'. Reports failed to note that the study found that long-term users of antioxidant vitamin supplements had a 48% reduced risk of cancer mortality and 42% lower all-cause mortality.

Discussion

There is no doubt that obtaining our vitamins and minerals from food sources is best. However as a result of poor lifestyle, financial, taste and other circumstances many people are not receiving the RDA of some vitamins and minerals from their diet. In Australia governments have attempted to address this by mandating the addition of some vitamins and minerals to food and water; however, deficiencies still exist.

Prevention is better than cure and the data are consistent. Multivitamin supplementation may help reduce the incidence of many disease and adverse health conditions, but may not be a cure.

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Common Lower Back Injuries *and Therapeutic Strategies*

George P. Kousaleos | LMT, NCTMB

On July 1, 2004 I was returning to work following a quiet lunch. As I was driving through a residential neighbourhood on a one-way street, a car failed to stop at the next intersection's crossing stop sign and instead entered the intersection at high speed, slamming into my car on the driver's side door. I felt the impact lift my car momentarily and then realized that I was spinning counter-clockwise in the middle of oncoming traffic. Luckily, the other cars avoided colliding with me and I came to a standstill half a block further down the road and facing in the opposite direction. As I tried unsuccessfully to open my door, a stabbing pain registered across my lower back and around the left side of my ribcage. Thirty minutes later the Fire Department's Rescue Team was cutting the doors off of my vehicle and manoeuvring me into the ambulance. Later that day in the emergency room I was diagnosed with five fractured ribs, skull lacerations, and undetermined lumbar injuries. Following an MRI several weeks later, the painful truth was revealed that I had incurred bilateral tears to the spinal discs between L3 and L4 and between L4 and L5.

For the first time since I became a massage therapist in 1978, and a structural integration practitioner in 1979, I was unable to practise my craft for an extended period of time. My volunteer role as co-director of the international sports massage team of the 2004 Athens Summer Olympics that would begin in mid-August was also in jeopardy. I was experiencing severe pain and spasm throughout the lower and mid-back, and I had shooting pain from my left hip to foot with every step I took. I finally knew what many of my clients had reported to me for many years was true, as this multiple injury had not only robbed me of physical comfort, but also of psychological well-being, patience, and optimism.

The Lower Back

The framework of the lower back includes five spinal vertebrae, which house and protect the lumbar portion of the spinal column. The vertebral discs of the lower back are responsible for cushioning the vertebral column and minimizing the impact from the various movements of the axial and lower appendicular regions of the body. Strong, fibrous ligaments surround the discs and attach the vertebrae to each other. The muscles that are attached to the lumbar vertebrae provide flexion, extension, hyperextension, and rotation of this region of the body, as well as hip flexion for leg movement. These same muscles also support the majority of the body's weight while standing.

The 5th lumbar vertebra (L5) sits on the base of the sacrum, directly between the sacroiliac joints. Movement of the lumbar spine is therefore linked to movement of the pelvic girdle.[1] The whole of the lower back, its bones, ligaments, muscles, and tendons, are surrounded and protected by the thoracolumbar fascia, the thickest layer of dense fibrous connective tissue in the human body.[2] Diamond shaped and covering the full length and width of the lumbar and sacral regions, this fascia is often at the center of traumatic damage to the lower back.[3] A recent finding showed the nociceptive potential of the lumbar fascia: in patients with nonspecific lower back pain, fascial tissue may be a more important pain source than lower back muscles or other soft tissues.[4]

Common Causes

Many massage therapists work with clients who have acute or chronic lower back pain. The lifetime prevalence of lower back pain is reported to be as high as 84%, and the prevalence of chronic lower back pain is about 23%, with about 10% of the population being disabled by lower back pain.[5]

The common causes of lower back pain include lumbar strain or sprain, nerve irritation, and degenerative bone or disc syndromes.[6] While traumatic injury is often the culprit, work- and sports-related overuse could also play a decisive role.[7] A study published recently in Annals of the Rheumatic Diseases showed that, globally, lower back pain arising from ergonomic exposures at work was estimated to be responsible for a third of work-related disability. In Australia, back pain is the leading cause of work loss days with 25% of sufferers taking 10 or more days off per year, and costing Australia around $4.8 billion each year for health care.[8]

There are other causes as well, including obesity,[9] pregnancy[10], kidney or ovarian problems, and tumours (benign or malignant).[11]

Lumbar Strain

Considered the most common form of lower back pain, lumbar strain is often caused by sudden overstretching of the ligaments, tendons, and muscles of the lower back.[6] Whether from improper use, work-related overuse, or trauma, lumbar strain results in microscopic tears in any or all of the soft tissues. The degree of tearing can result in minor acute conditions that heal in a matter of weeks, or chronic conditions that can affect the client for months or years. Massage therapy, hydrotherapy, and thermal therapy can be successfully used in many cases.[11,12]

Nerve Irritation

The nerves of the lumbar spine can be irritated by traumatic impingement or by degenerative disease. The impingements are often at the spinal roots adjacent to the bodies of the vertebrae, but they can also occur along the nerve pathway or on the outer layer of the thoracolumbar aponeurosis.[13]

Lumbar disc disease, or radiculopathy, is caused by damage to the discs between the vertebrae. This 'wear and tear' syndrome most often affects people over 40 years of age. These syndromes may cause a compression of the lumbar discs, commonly called 'bulging' discs. The irritation often affects the denser ring surrounding the disc (annulus fibrosus). The most common form of bulging disc may not cause as much pain as other nerve irritations.[11]

Excessive bulging may cause a herniation of the nucleus of the disc. This 'slipped' or 'ruptured' disc can cause tears towards the soft, jellylike center of the disc (nucleus pulposus), forcing a fragment of the nucleus to rupture the outer layer of the disc.[11]

In either case there is a narrowing of the space between the vertabrae, resulting in local pain of the lower back, or pain that shoots further down the posterior or lateral side of the leg. The most common severe lumbar radiculopathy is called sciatica, as it has irritated portions or branches of the large sciatic nerve whose pathway extends from the lumbar and sacral areas to the lower leg and foot.

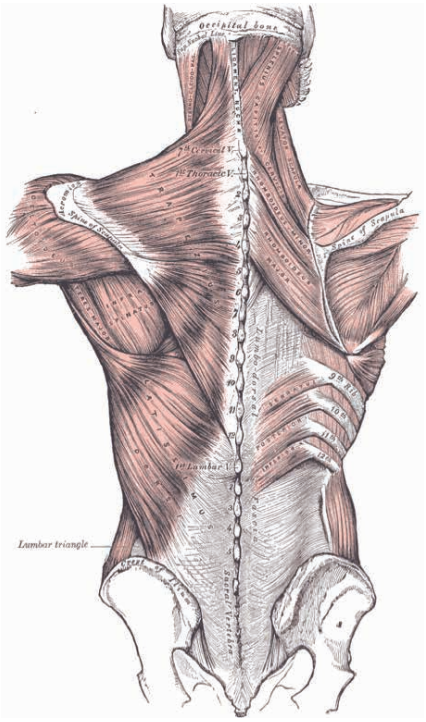

Fig.1 Superficial muscles of the back showing the thoracolumbar fascia. Source: Gray's Anatomy (1918). Public domain image.

Spinal Stenosis

The narrowing of the central spinal canal is called spinal stenosis.[11] This occurs in the lumbar region more often than in the thoracic or cervical spine. The narrowing of the spinal foramen can be a part of the normal degenerative ageing process, but can also be accelerated by falls or arthritic conditions. Stenosis is often accompanied by a narrowing of the disc space, due to dehydration of the cartilaginous material. The symptoms of stenosis may often start as generalized pain in the lower back or legs, but may also cause weakening of the soft tissues.[14]

Chronic vs Acute

Many people experience lower back pain, with some national estimates stating that two out of three people will experience an acute episode during their lifetime.[6] It is the second most common reason for missed work (colds are first). The figure for chronic situations is dramatically different, with one in 50 people experiencing long-term disability from lumbar injuries. As stated earlier, lower back pain becomes chronic after four to six weeks of painful symptoms. Multiple episodes of acute lower back injury may lead to a more severe chronic condition. The difficulty in diagnosing the causes, and therefore the best treatment plan, is that many symptoms of different injuries look remarkably similar and only very expensive diagnostic strategies are likely to pinpoint the injured tissues with any level of specificity.

Because most massage therapists will initially see clients with acute lower back pain, it is important to have a comprehensive treatment plan organized for the safe treatment, exercise, and wellness initiatives that surround the most common acute injuries. Patients with radiating pain should be referred for assessment. Here are other treatment modalities that may be integrated with various forms of massage therapy when the patient's condition permits.

- Range of motion exercises keep the soft tissues more limber and less restricted.
- Strengthening exercises for the waistline musculature, commonly called the 'core' of the body.
- Stretching exercises with an accent on hyperextension, forward and lateral flexion, and spinal rotation.
- Hydrotherapy and thermal therapy to limit inflammation and to diminish pain (cryotherapy or contrast therapy).
- A nutritional plan that safely lowers caloric intake if obesity is involved.

These modalities need to be a part of a universal treatment plan that educates clients on biomechanical issues, postural improvements and other wellness initiatives.

Massage Therapy Treatment Strategies

Many disciplines of massage therapy can be utilized to eradicate the painful, and often lingering, symptoms of sub-acute and chronic lower back injuries.[12] A recent review demonstrated that massage therapies are effective to provide short-term improvement of sub-acute and chronic lower back pain symptoms.[12] When it is combined with therapeutic exercise and education, the treatment becomes more effective.[15]

Many clients have seen other health care professionals before visiting a massage therapist and have tried various forms of relief, including prescription pain medications, over-the-counter analgesics, steroid injections, and various physical (or physio-) therapy modalities. Massage therapy treatment strategies should include the following to improve the soft tissue dysfunction commonly found in lower back injuries:

- Treat the whole body – all soft tissue is interconnected through the multiple layers of fascia that surround and support the body.
- Spend sufficient time warming the tissues of the full length of the back, and include treatment for the abdomen, hips, and thighs.
- Balance the treatment of the lower back by working these tissues from all sides, including prone, supine, and side-lying.
- Check for postural distortions, including excessive lordosis, obvious rotation of the pelvis, and extra weight on one side of the body.
- Test range of motion of the lumbar spine in flexion, hyperextension, and spinal rotation.
- Bear in mind that massage therapy is most effective when delivered in a progressive series of sessions that gradually work deeper tissues that are less sensitive.
- Go slow, nurturing the parasympathetic reflexes of the autonomic nervous system.
- Incorporate gentle strengthening exercises for the back, abdominal, and legs, and also stretching exercises.

The Lower Back Routine

From the supine position with support under knees

Start with broad palm strokes to the full length of the quadriceps, moving from knee to hip. For deeper work apply strokes across the musculature with palms, finger pads, or soft fists.

Release tension on the abdomen by stretching the rectus abdominus to either side from its lateral borders. This can also be coordinated with movement of the legs to the opposite side in a rocking motion.

Reach across the abdominal region and pull forward on the lateral waistline. Keep your hands spaced between the iliac crest and lower ribs. Work both sides thoroughly.

Bring one leg superior into deeper hip flexion and move the leg in ever-increasing circles, testing the tightness of the hip rotators. Move each leg in clockwise and counter-clockwise directions.

From the side-lying position

Stretch the sacroiliac joint and lengthen the lumbar spine by pulling the ilium posteriorly from the ASIS while pushing the sacrum anteriorly. Hold for several seconds with each stretch.

Table 1. "Red-flag" or alerting features of serious conditions associated with acute lower back pain that should prompt referral to medical practitioner. (From Table 5.1 of Evidence-based Management of Acute Musculoskeletal Pain)[16]

Feature or risk factor condition	Condition
Symptoms and signs of infection (e.g. fever) Risk factors for infection (e.g. underlying disease process, immunosuppression, penetrating wound)	**Infection**
History of trauma Minor trauma (if greater than 50 years, history of osteoporosis and taking corticosteroids)	**Fracture**
Past history of malignancy Age greater than 50 years Failure to improve with treatment Unexplained weight loss Pain at multiple sites Pain at rest	**Tumour**
Absence of aggravating features	**Aortic aneurysm**

With both hands apply palm pressure across the oblique region. Include pressure on the superior aspect of the iliac crest and further up the lower ribcage. Work the tissues in both horizontal directions at the same time.

Apply palm or soft-fist pressure on the lateral edge of the lumbar region, moving slowly across the tissues towards the spine. Try to capture as much of the lateral aspects of the thoracolumbar aponeurosis, iliocostalis lumborum, and quadratus lumborum, with each successive stroke moving deeper and slower.

Apply palm or soft fist strokes across the lateral thigh beginning at the greater trochanter and covering the full length of the iliotibial band. For deeper work use the forearm in slow, broad strokes.

Apply a cross-armed stretch from the mid-portion of the lateral ribcage to the iliac crest and hold for several seconds.

Stretch the same two regions in a spinal twist. When maximizing each stretch have the client exhale fully.

From the prone position

Apply broad palm strokes down the full length of the thoracic and lumbar erector spinae. Use moderate force initially and continue on either side with forearm and then elbow for deeper work.

Using the thumbs, trace either laminar groove from mid-thoracic region to the base of the sacrum. Apply inferior pressure to the full width of the sacral base.

Apply palm, finger pad, or soft fist strokes across the lumbar region, moving laterally from the laminar groove to the oblique muscles.

Reverse the direction and apply gradually deeper strokes moving medially across the same region. Start with broader techniques and eventually use more specific techniques for deeper work.

Release tension throughout the hip rotators using compression strokes with soft fist or finger pads while moving the iliofemoral joint through moderate external and internal rotation.

Apply broad palm or soft fist strokes across the hamstrings, moving inferiorly from hip to knee.

Final Thoughts

Effective treatment for acute lower back pain can help return your client to a more active, pain free lifestyle. Any red flag conditions (see Table 1) or chronic conditions that do not respond as expected should be referred to a primary contact medical practitioner for verification that massage therapy can be safely included in a multidisciplinary treatment plan. Enjoy the challenge!

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ARTICLE

Effects of ethanol extract of *Commiphora myrrha gum against Helicobacter pylori and* ***inhibition of proliferation of the human AGS cell line in vitro.***

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Abstract

Introduction: Helicobacter pylori is a common human pathogen associated with many gastrointestinal (GI) problems, especially gastric ulcers and cancer. Gastric cancer is one of the major causes of death throughout the world. Gum of Commiphora myrrha, as a medicinal plant, is reported to have antibacterial and anticancer effects.

Materials and methods: The ethanol extract of gum of Commiphora myrrha was prepared using 85% ethanol hydroalcoholic solvent. The anti-*H. pylori* effect was evaluated using the disc diffusion and agar dilution methods against three clinical isolates of *H. pylori*. Effects of the extract on the human gastric carcinoma AGS cells were assessed using staining with the trypan blue method and MTT assay. Furthermore, effects of the extract on peripheral blood mononuclear cells (MNCs) and mesenchymal stem cells (MSCs) as normal cells were evaluated.

Results: The mean inhibition zone diameter of the extract against *H. pylori* was 30 mm, and the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) were 256 µg/ml. After 24 hours of treatment with the extract, AGS, MNCs, and MSCs were killed at the

extract concentrations of 100, 200, and 1000 µg/ml, respectively. Cell viability of AGS cells after treatment with the extract at the concentration 100 µg/ml after 24 hours was 28.02%.

Discussion: Gum of Commiphora myrrha showed significant anti-*H. pylori* and anticancer effects in vitro. Therefore, it can possibly be considered as an appropriate candidate for treatment of *H. pylori* infection and gastric cancer. Further human trials are needed to elucidate whether these results occur in vivo.

Keywords: Commiphora myrrha; Helicobacter pylori; MIC; MBC; AGS.

Introduction

Helicobacter pylori (H. pylori) is a human pathogen, directly associated with many diseases of the upper gastrointestinal tract, including chronic gastritis, non-ulcer dyspepsia, peptic ulcer diseases, and gastric cancer[1]. Combination therapy with antibiotics and proton pump inhibitors (PPIs) is shown to be effective in eradication of *H. pylori*. The high rates of resistance of *H. pylori* to antibiotics have led to an increased search for preventive compounds or new treatment alternatives[2].

Gastric cancer is one of the major causes of death throughout the world. Although prevalence of the disease has decreased in most parts of the world, it is still the fourth common cancer globally. Since the cancer is associated with poor prognosis, it is the second leading cause of cancer deaths[3].

C. myrrha is a plant belonging to the Burseraceae family and mainly grows in east Africa, the Arabian Peninsula, and India[4]. The plant has antibacterial, antifungal, antiviral, anti-inflammatory, and analgesic effects[5,6].

Previous investigations have revealed that the ethanol extract and compounds extracted from *C. myrrha* have inhibitory effects for different cancer cell lines such as human ovarian cancer, hepatic carcinoma, endometrial carcinoma, colon cancer, and prostate cancer[7,8].

As mentioned above, *H. pylori* infection and gastric cancer have high prevalence rates, especially in the developing countries. Therefore, in the current study, the anti- *H.pylori* activity and growth inhibitory effects of the *C. myrrha* extract against the AGS cell line, as well as against the normal mononuclear cells (MNCs) and mesenchymal stem cells (MSCs) were investigated in vitro.

Materials and methods

Preparation of plant extract:
Gum of *C. myrrha* was soaked in 85% ethanol for four hours and then filtered using the Watman filter paper No. 1. The gum was then concentrated using a rotary evaporator (Heidolph, Germany) then the concentrate was spread in glass plates at the room temperature in dark, under vacuum condition. After 24 hours, the solvent completely evaporated. The gum obtained was dissolved in ethanol and dimethylsulfoxide (DMSO) at the ratio of 1:1, then sterilized using a 0.2-µm filter (Orange, Belgium) and kept at 4 ºC until experiment[7].

Preparation of *H. pylori* isolates:
Three clinical isolates of *H. pylori* were prepared in the Kurdistan University of Medical Sciences. The isolates were cultured in Brucella agar medium (Merck, Germany) containing 10% sheep defibrinated blood and 7% fetal bovine serum (FBS) (Gibco, UK, Manchester) at 37 ºC for 72 hours under microaerophilic condition (10% CO2, 5% O2, 90% humid) in an CO2 incubator (Memmert, Germany)[9].

Cell lines and culture:
The human Caucasian gastric adenocarcinoma cell line (AGS, NCBI: C-131) was obtained from the cell bank of Pasteur Institute of Iran. The cells were cultured in T25 flasks in the RPMI-1640 (Biosera, France), containing FBS 10% (Gibco, UK), in an incubator under CO2 5% and humidity 90% at 37 ºC. Cells at 70–80% confluence were transferred to 96- and 24-well plates for MTT assay and cell count using the trypan blue method, respectively. In all the cases, three wells were considered for each concentration and all tests were performed in triplicate[10].

Separation of MNCs:
Mononuclear cells (MNCs) were isolated from adult human peripheral blood by gradient centrifugation at 2500 rpm for 30 minutes on Ficoll Hypaque (Biosera, France). The cells obtained were suspended in the RPMI-1640 (Biosera, France) and were counted using the Neubauer slide[11].

Culture of MSCs separated from the human bone marrow:
MSCs separated from human bone marrow were obtained from the Cellular and Molecular Laboratory of the Kurdistan University of Medical Sciences. The cells were cultured in Dulbecco's modified Eagle's medium (DMEM) (Gibco, UK) containing 15% FBS (Gibco, UK) basic fibroblast growth factor (BFGF) (Millipore, USA) and epidermal growth factor (EGF) (Millipore, USA). The cells were counted after the fourth passage. At this stage, the extract effect on the cells was evaluated[11].

Determination of inhibition zone diameter:
Firstly, the ethanol extract of *C. myrrha* gum was prepared with the concentration of 10000 µg/ml and then 50 µl of the solution were added to sterile blank discs (6 mm in diameter) (Padtan Teb, Iran). The discs were placed in the incubator at 25 °C. After 24 hours, the discs were completely dried and the solvent was removed. Then, from the 72 hour bacteria culture, the concentration of 1.0 McFarland (3×108 CFU/mL) was prepared and cultured on the Brucella agar plates (supplemented with 10% defibrinated sheep blood and 7% FBS) using a sterile swap. Then the extract discs were placed on the medium surface. The discs containing the solvent (ethanol: DMSO) were used as the negative control, while the standard discs of amoxicillin (25 µg/disc) and gentamycin (10 µg/disc) (Padtan Teb, Iran) were used as the positive control. The plates were kept in a CO2 incubator for 72 hours. The mean diameter of inhibition zone was measured in mm by a caliper[12].

Determination of MIC and MBC values of the extract:
To determine the MIC and MBC using the agar dilution method, the concentrations of zero (as the negative control, which contained the solvent without the extract) and 64-2048 µg/ml concentrations were prepared from the ethanol extract of *C. myrrha* gum.

1ml of the extract at two-fold concentration was added to 19 ml melted brucella agar medium containing 10% sheep defibrinated blood and 7% FBS. Next, from the fresh culture of *H. pylori*, a concentration of 3 × 108 was prepared in brucella broth and 100 µl of the suspension was added to the media containing different concentrations of the extracts, spread over the medium by a hooked Pasteur pipette, and cultured for 72 hours in a CO2 incubator. The experiments were performed in triplicate and the lowest extract concentration at which the bacterium showed no growth was considered as the MIC, while MBC was determined by no bacterial growth following inoculation from the MIC plates and before that to the brucella agar not containing the extract[13].

Determination of the inhibitory effect of ethanol extract of *C. myrrha* gum on the AGS cell line, MNCs, and MSCs:

• MTT assay

AGS cells were incubated with concentration of 0 (control), 1, 10, 25, 50, and 100 µg/ml the ethanol extract of *C. myrrha* gum for 24 hours under CO2 5% at 37 °C, and then were stained with 10 µl of the MTT solution (50 mg/ml). Following 3-5 hours of incubation at 37 °C, the supernatant was removed and 100 µl isopropanol (Merck, Germany) were added to each well. Then, the microplate was placed on the shaker for 10-15 min. When the crystals in the bottom of the wells were dissolved, the solution was transferred to a flat-bottom 96-well microplate and the optimal density (OD) was read by an ELISA reader at 570 nm. The ratio of the cell viability to the control group (without the extract) was calculated according to the following formula[14].

Cell Viability rate: (mean OD of the test group/ mean OD of the control group) × 100.

• Trypan blue staining

The AGS, MNCs, and MSCs cells were incubated with concentrations of 0 (control), 10, 25, 50, 100, 250, 500, and 1000 µg/ml of the ethanol extract of *C. myrrha* gum in CO2 incubator (CO2 5%, 37 °C). The incubation time periods for AGS were 24, 48, and 72 hours, while the time was 24 hours for MNCs and MSCs. Following that, 30 µl of the cellular suspension were picked up and after mixing with 30 µl of trypan blue, the number of viable cells was determined on the Neubauer slide[15].

Statistical analysis:
The results are provided as mean ± SD. Each experiment was carried out at least three times in triplicate.

Results

Inhibition zone diameter, MIC and MBC of ethanol extract of *C. myrrha* gum on *H.pylori*:
The mean inhibition zone diameter for discs containing the ethanol extract of *C. myrrha* gum indicated

Table 1. Mean inhibition zone diameter (mm) of 85% ethanol extract of *C. myrrha* gum against three clinical isolates of *H. pylori*. The mean values obtained are related to the discs containing 10000 µg/ml of ethanol extract of *C. myrrha* gum and the discs containing antibiotics. The mean values were obtained from triplicate experiments for each isolate.

Extract and antibiotic discs	Mean inhibition zone diameter (mean ± SD) (mm)
Ethanol extract of C. myrrha gum	30.86±2.07
Gentamycin	67.63±1.60
Amoxicillin	46.76±1.87

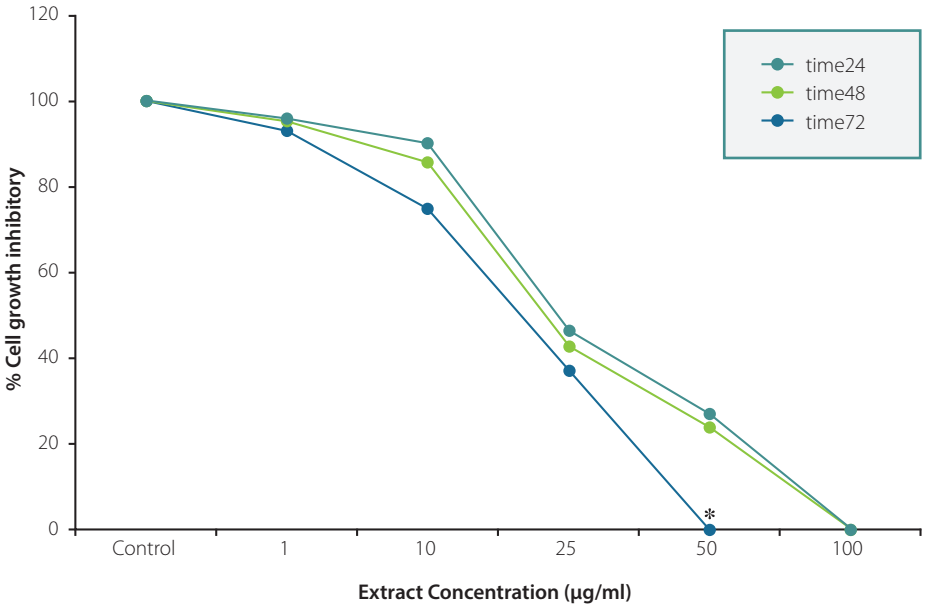

Figure 1. Effect of ethanol extract of *C. myrrha* on AGS cell line. AGS cells were treated by the extract with concentrations of 0 (control), 1, 10, 25, 50, and 100 µg/ml, incubated for 24, 48, and 72 hours; and then the number of viable cells were counted using trypan blue staining. Each experiment was repeated three times. The values on the diagram indicate the mean percentage of cell growth inhibition.
* number of cells was less than 20000 (equivalent to 6.23%) and could not be counted.

significant activity of the extract against *H. pylori* (Table 1).

Results of effect of ethanol extract of *C. myrrha* gum on AGS cell line:
Using the trypan blue method, the decrease in number of AGS cells treated by the ethanol extract of *C. myrrha* was determined. In a concentration of 100 µg/ml of the extract, the number of viable cells was almost zero (Figure 1).

The results related to the effect of ethanol extract of *C. myrrha* on AGS cells using the MTT assay method indicate that the viability rate of the cells decreased as the extract concentration increased. This confirms the results of cell count in the trypan blue method (Table 2).

Effects of ethanol extract of *C. myrrha* on human MNCs and MSCs indicate that these cells are more resistant against the anti-proliferative effects of the extract, such that with the extract concentration of 100 µg/ml, viable cells could be counted (Table 3).

Discussion and conclusion

C. myrrha is a plant used in traditional medicine, for which anticancer and antibacterial characteristics have been reported. Omer et al (2011). demonstrated that the ethanol and ether extracts of *C. myrrha* have antibacterial activity against Gram-negative bacteria E. coli and Pseudomonas aeruginosa with an MIC of 20 and 40 mg/ml, respectively, as well as against the Gram-positive bacteria Bacillus subtilis and Staphylococcus albus with an MIC of 10 and 40 mg/ml, respectively. Furthermore, they are effective against Candida albicans with an MIC of 10 mg/ml[16].

In the current study, it was observed that ethanol extract of *C. myrrha* has

Table 2. Effect of ethanol extract of *C. myrrha* with different concentrations on viability of AGS cells. The cells were treated by the extract with concentrations of 0 (control), 1, 10, 25, 50, and 100 µg/ml and then viability of the cells was determined using the MTT method. For each concentration, the experiment was repeated three times.

Concentration of ethanol extract of C. myrrha (µg/ml)	Percentage of cells viability
0 (control of the extract solvent)	100%
1	98.12%
10	90.80%
25	65.41%
50	46.50%
100	28.02%

Table 3. Effect of ethanol extract of *C. myrrha* with different concentrations of the extract on MNCs and MSCs. The extract was added to the cell suspensions with the concentrations of 0 (control), 1, 10, 25, 50, 100, 500, and 1000 µg/ml, and after 24, 48, and 72 hours of incubation, trypan blue was added and the viable cells were counted. The experiments were performed in triplicate.

Concentration of ethanol extract of C. myrrha (µg/ml)	Percentage of viable cells counted using trypan blue after 24 hours	
	MNCs (%)	MSCs (%)
0 (control of the extract solvent)	100 cell/ml	100 cell/ml
1	94.11 cell/ml	Not evaluated
25	70.58 cell/ml	Not evaluated
50	31.76 cell/ml	75 cell/ml
100	>23.52 cell/ml	46.42 cell/ml
250	~0	25 cell/ml
500	Not evaluated	<14.28 cell/ml
1000	Not evaluated	~0

antibacterial activity against *H. pylori* with an MIC of 256 µg/ml. This is the first report on the anti-*H. pylori* effect of *C. myrrha* extract. The strong antibacterial effect observed in the study compared with results reported in other studies could be due to the difference in the type of bacteria and even the method of extract preparation. There are no reports on the mechanism involved in the antibacterial activities of the extract. Thus, studying the mechanism seems necessary.

Ethanol (85% EtOH) and petroleum ether extracts of *C. myrrha* have been reported to have anti-proliferative and cytotoxic activities against different cancer cell lines with an IC50 of 12.8-57.8 [8]. Moreover, the aqueous extract of the plant has cytotoxic activity against eight cancer cell lines with inhibitory rates above 75%[10].

In the current study, it was observed that the plant has significant anti-proliferative and cytotoxic activities against the AGS cells. The activity was time- and concentration-dependent, such that, with the concentration of 100 µg/ml and contact time of 24 hours, the number of viable cells was almost zero, and with the concentration of 50 µg/ml and contact time of 72 hours, more than 90% of the cells were killed. Using the MTT assay method, it was shown that with the concentration of 100 µg/ml, viability of the cells decreased more than 70%. This is while the extract has lower inhibitory effect against MNCs and MSCs normal cells.

In previous studies, it was shown that the risk of gastric cancer incidence in people infected by *H. pylori* is 75% higher[17]. In this regard, it is reported that eradication of *H. pylori* infection in infected patients who do not have premalignant lesions would reduce the risk of cancer development[18]. Therefore, according to our findings, *C. myrrha* could be an appropriate candidate for treatment of *H. pylori* infection. Moreover, considering the anti-*H. pylori* and anticancer effects in vitro of the plant as well as the lower inhibitory effects against normal cells in comparison with the AGS cells, the plant extract can probably be useful in treatment of gastric cancer. Therefore, further investigations on the plant extract, especially under in vivo conditions, are recommended for prospective studies.

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Acupressure and Myofascial Therapy: *A Unified Approach*

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Qi as the Ground of Healing

Over the last three decades, myofascial work has become widespread in the field of bodywork. This has happened because it has proved to be a very effective approach to healing the body.

But what is the actual healing mechanism underlying this work?

In this article I propose that even though myofascial work appears to be working simply with the physical tissue structure, it is actually working with the energetic field of the body. I further propose that this energy field is more fundamental than physical structure, and is where the deepest healing occurs. I suggest that it is actually the field of Qi (or energy) that is fundamentally affected by myofascial therapies.

What has led me to this place is my understanding of the profound interrelationships between the fascial network and the meridian and acupuncture point system, which maps the energy field of the body.

The practice of acupuncture is not accessible to most bodyworkers. However, acupressure, which uses the hands, in particular finger pressure on the acupuncture points, provides a vehicle which bridges the structural and the energetic systems. Acupressure provides an interface between soft tissue modalities and energetic medicine.

Thus the knowledge of acupressure makes it possible to significantly expand the healing capacity of myofascial work. It allows us to intelligently track and work with the flows of energy as they are affected by tissue manipulation, and to greatly facilitate, understand and direct the healing flow of Qi.

A number of recent landmark publications and research studies, as well as the writings of an ancient Chinese physician, have noted interrelationships between tissue manipulation and Qi. An overview of these publications follows.

After that I present a case study which shows not just that the two systems are interrelated, but that myofascial work creates profound healing shifts in the client's energetic field.

Trigger points and acu-points

Mark Seem's 1993 work provided an exploration of this interface between the meridians of acupuncture and bodywork. He boldly asserted, 'Acupuncture from a meridian perspective is primarily a myofascial, musculoskeletal therapy'.[1] While it also produces improvements in internal systems, it does this by treating the body surface of the myofascial body fabric.

Much of Seem's work looked at the close relationship between the acupuncture meridian system and the trigger point system developed by Janet Travell in the 1940's. She defined a trigger point as 'a highly irritable localized spot of exquisite tenderness in a nodule in a palpable taut band of muscle tissue'.[2]

"POINT LOCATION BECAME A THEORETICAL EXERCISE AND THE CONCEPT OF THE *A-SHI* POINTS WAS OVERLOOKED. HOWEVER, THIS METHOD OF PALPATING FOR TENDER POINTS REMAINS ALIVE AND WELL IN JAPAN WHERE ACUPUNCTURISTS ARE FAR MORE WILLING TO USE THEIR PALPATION SKILLS TO FIND POINTS."

Travell had no knowledge of Chinese medicine, yet her trigger point map corresponds closely to the acupuncture points. How can we explain this close correspondence? It appears that Travell had rediscovered an ancient system first espoused by Sun Simiao in the 7th century. That venerable Chinese physician discovered that tender points on the body, what he called *a-shi* points, were accumulations of congested, stagnant Qi. While modern maps of the meridians can provide precise anatomical locations of acupuncture points, these locations are merely a guide to the areas where the tender *a-shi* points may be found.

When the communist government in China resurrected the lost art of acupuncture in the 1950's, they created a system that could be strictly codified and taught in colleges and which moreover had a western medical slant. Point location became a theoretical exercise and the concept of the *a-shi* points was overlooked. However, this method of palpating for tender points remains alive and well in Japan where acupuncturists are far more willing to use their palpation skills to find points.

Mark Seem wanted to restore this myofascial perspective to acupuncture. 'To me, unblocking the qi through acupuncture is identical to myofascial release … Classical acupuncture and modern myofascial perspectives have much to offer each other.'[1]

Myofascial chains and trains

The concept of trigger points was taken a step further by Headley who, in treating myofascial pain, identified strings of related trigger points which form myofascial chains.[3] The work with patients with low back pain traced myofascial chains down the back and legs in a pattern that bears a remarkable similarity to the pathways of the Bladder and Gall Bladder meridians.

The ground breaking work of Thomas Myers' *Anatomy Trains* took this concept of myofascial chains to another level. He identified nine of these myofascial networks which he called myofascial meridians. 'Muscles operate across functionally integrated body-wide continuities within the fascial webbing. These sheets and lines follow the warp and weft of the body's connective tissue fabric, forming traceable 'meridians' of myofascia.'[4]

Myers took time to explain that the myofascial meridians are not acupuncture meridians. Yet to those with a knowledge of acupuncture meridians, the similarity is immediately obvious. Others have taken the trouble to investigate the correspondence. Peter Dorsher's study of Myers' nine myofascial meridians revealed that, 'In 8 of 9 comparisons, there was substantial overlap in the distributions of the anatomically derived myofascial meridians with those of the acupuncture Principal Meridian distributions'.[5] In addition the ninth could be described as a combination of two acupuncture meridians.

Dorsher concluded that, 'The marked degree of correspondence noted in this qualitative study between the distributions of the anatomically derived myofascial meridians to those of acupuncture Principal Meridians is unlikely to be coincidental'.

More generally, scientists and practitioners alike have noted the close correspondence between the meridians and the fascial network. John Barnes, developer of Myofascial Release Therapy asserts that, 'The acupuncture meridians lie within the fascial system. Recent research has shown that each acupuncture point is a fascial structure'.[6]

"There was a qualitative shift in how she experienced herself internally. She felt grounded and centered mentally, emotionally became much less worried, and overall had a feeling of equanimity."

One such piece of research was that by Langevin and Yandow which mapped acupuncture points in serial gross anatomical sections through the human arm. 'We found an 80% correspondence between the sites of acupuncture points and the location of intermuscular or intramuscular connective tissue planes in postmortem tissue sections.'[7]

To return to Dorsher, he believes that sufferers of myofascial pain can benefit from either acupuncture or myofascial techniques. 'I think it is fair to say that the myofascial pain tradition represents an independent rediscovery of the healing principles of traditional Chinese medicine.'[8]

Under the Bonnet

While these studies undoubtedly point to a correspondence between myofascial structures and meridians, I believe that it is the system of Qi flow that underpins all physical structures including the fascia and organs. With a knowledge of the acupuncture meridians we can work directly with the underlying Qi, thereby not simply achieving myofascial pain relief, but affecting qualitative changes in our clients at the levels of organs, systems, psyche and emotions.

Let me give an example of a recent case. My client presented with neck and jaw tightness, a feeling of being stuck in her head, worrying excessively, feeling tight and sore in the gut and feeling out of touch with her legs and feet.

I used standard myofascial techniques in her jaw, neck and upper chest. The Stomach meridian flows through all these areas. The myofascial work not only softened the tissue, but released blocked Qi in the upper part of the Stomach meridian, allowing a free flow of Qi through the lower part of the meridian, that is the abdomen, legs and feet. As these changes happened, I supported and enhanced them by holding some Stomach meridian points on her legs.

The client noticed healing that went far beyond the immediate effects of the myofascial work. She felt more balance between the upper and lower body, her stomach relaxed and there was a sense of ease in the abdomen. Such were the physical changes. But in addition there were significant emotional and energetic effects. There was a qualitative shift in how she experienced herself internally. She felt grounded and centered mentally, emotionally became much less worried, and overall had a feeling of equanimity. Her pulses also changed, reflecting a balancing of the Stomach meridian, as well as other meridians. These changes were all in alignment with harmonizing of the Stomach meridian and the field of Qi.

All these healings came about as a result of releasing the fascia, but more fundamentally from a balancing of the Qi flow in the body.

Conclusion

As bodyworkers, we are uniquely placed to bring these two systems, one ancient, the other modern, into an integrated whole. Working with the fascia of an area of the body releases the congested Qi in the acupuncture points in that area, and also in distant parts of the relevant meridian or meridians. Understanding both systems allows us to intelligently facilitate shifts in both the fascial network and the energy body, thus healing not just the tissues, but also the organs, the psyche and the emotions.

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Bryonia

Constipation *and its Management Using Homoeopathy*

Robert Medhurst | BNat DHom

Constipation is defined as bowel movements that are infrequent or difficult to pass. At any one time between 6% and 30% of the population may report constipation[1]. As a rough benchmark, the 'normal' frequency of bowel movements for an adult is 3-12 per week. At some stage, most people will experience constipation and its causes are many and varied.

In my own practice, the primary causes are stress, depression, and a lack of exercise, water, dietary fibre or oil, not necessarily in that order. In its chronic form, constipation is usually a symptom rather than a disease, and in addition to the above, it may also be associated with anorexia, autonomic neuropathy, the use or overuse of prescribed OTC or other drugs, hypothyroidism, IBS, diverticular disease, obesity, delayed defaecation urge, pregnancy, anorectal fissures or haemorrhoids, diabetes, scleroderma or spinal cord injury, to name just a few.

Dealing with the cause of the problem is obvously the best method of managing constipation but where the cause cannot be determined, or the constipation fails to respond to initial treatment, or it occurred without any notable concomitant pathological symptoms, homoeopathy is worth considering. Over many years of treating this disorder, I and several noted authorities[2-10] have found that great relief can be offered to sufferers of constipation by a small group of homoeopathic remedies, the main prescribing features of which are outlined below.

Alumina

This remedy is often very useful with children and the elderly and is associated with constipation that may last for days or weeks, and is due to dryness and inactivity of the intestines where stools accumulate and are very difficult to evacuate, often reducing the desire for a bowel movement. Inactivity of the bladder may also be seen here, as well as general dryness of mucous membranes and skin, debility, and a sluggish metabolism. Great straining is required to pass hard and dry stools, which may also be clay-like and stick to the rectum, and these symptoms often suggest Alumina. Confirmatory symptoms include a sore rectum and a need to strain to facilitate a bowel movement. Evacuation is often preceded by painful urging. The sufferer may also have very little appetite, only swallowing small amounts of food at a time, and an aversion to meat. Symptoms are worse in the morning, worse on waking and inactivity, and better in the evening and on alternate days.

Bryonia

Bryonia is characterised by irritability and dryness of mucous membranes. The constipation sufferer who will commonly respond to Bryonia may complain of hard, dry, thick brown stools that may look burnt or bloody and they'll often have little or no desire to pass them. There is usually accompanying weakness, hunger, irritability, a dry mouth, thirst, particularly for large quantities of cold water, nausea, a bursting or splitting headache, as well as sticking or tearing abdominal pain or colic. Symptoms are worse in the morning, from hot weather, moving the head or any sort of motion, and are better from rest.

Graphites

Stools here are not passed without significant straining and the appearance of the stools is quite characteristic - hard, large, lumpy stools that are joined together by slimy strings or threads. The sufferer may be chilly and overweight and may appear nervous, fidgety and timid. There may be a history of itching or burning skin disorders, burning haemorrhoids, rectal prolapse or anorectal fissures. Symptoms are worse from warmth, and better from drinking warm or hot milk.

Natrum Muriaticum

Nat mur stools are dry and crumbling and, as with several other remedies mentioned here, dry mucous membranes are often seen in this remedy picture. There may be bleeding from the rectum or anus with burning and stitching pain following a bowel movement. Weakness and depression may be evident and the sufferer may also experience blinding headaches. Symptoms are worse from mental exertion and better from cold bathing and abstaining from food.

Nux vomica

There's often an association here between constipation and the overuse of alcohol, coffee or other stimulants, as well as mental overwork, stress or a lack of exercise. Frequent and ineffectual urging to stool is usually seen here - sufferers feel an urge for a bowel movement and but often only pass a small amount of faecal material, leading to a sense of incomplete evacuation. The sufferer may be overly sensitive or irritable, nervous and chilly and may be prone to liver congestion, congestive headaches and itching haemorrhoids. Symptoms are worse from mental exertion, after eating and in cold weather, and better from rest and in damp or wet weather.

Silica

In this instance, constipation is often related to the retention of faecal material in the colon. A characteristic symptom here is that stools are only produced after much straining and on emerging from the rectum they soon retreat back into it. The sufferer is often anxious, chilly with poor cold tolerance, and often experiences sweating of the head and hands, and may have anal fistulae and haemorrhoids. Symptoms are worse before and during menses and better for warmth and wet or humid weather.

Opium

The person who may benefit from Opium will make reference to round, dry, black, pellet - like stools that are only passed on an irregular basis. As in the case of Silica, stools may emerge slightly and then recede back into the rectum. Sufferers often experience pain in the rectum and have little or no desire to defaecate. Most physical functions in this instance are sluggish. Symptoms are worse from warmth or heat and better from prolonged walking.

Plumbum metallicum

The symptoms here may be consistent with intestinal paralysis. Hard, dry, lumpy, black stools or stools resembling

sheep dung are a notable feature with Plumbum met. The sufferer often complains of accompanying colic and anal spasms caused by urging, and mental depression may also be seen here. One of the guiding symptoms in this instance is a feeling as if the navel is drawn backwards towards the spine by a string. Symptoms are worse from motion and better from pressure.

Veratum album

Veratrum album or White Hellebore is useful for those with constipation who have to strain vigorously to the point of exhaustion and a cold sweat to produce large stools. It's often very helpful in infantile constipation and other symptoms such as mental depression or a sullen indifference, headaches, coldness, weakness and vomiting are useful in guiding the prescriber to this remedy. Symptoms are worse from wet or cold weather, and are better from walking or warmth.

Aesculus

The homoeopathic proving picture of Aesculus contains some interesting and characteristic symptoms. A feeling as if the rectum is filled with sticks, or sharp pains that shoot upwards may be reported here. There may be lower back pain that is aggravated from walking or stooping. The sufferer may appear to be depressed and irritable and may complain of a burning anal pain with chills travelling up and down the back. Prolapse and haemorrhoids are often present, and these are particularly painful after a bowel movement. Stools are hard, dry and difficult to pass and there may be a feeling of fullness. Symptoms are worse from standing or heat and better from cold and moderate or prolonged exercise.

Sepia

This is a common prescription for pathology related to portal congestion. There is often sadness, weakness, a yellowing of the skin and a bearing down sensation felt internally. Constipation here is associated with bleeding and painful haemorrhoids, a feeling of fullness, and a feeling as if there were a ball in the rectum that isn't relieved by defaecation. Pains that shoot upwards may be reported. Stools are often large and hard, or appear as dark round balls connected by mucus. There may be a history of anal prolapse. Symptoms are worse from rest or prolonged standing and better from exercise or pressure.

Lycopodium

In this instance, Lycopodium is associated with a lack of muscular tone, eructation, bloating, flatulence, ineffectual urging. small, hard stools that are difficult to pass and after being passed are often followed by a feeling of incomplete evacuation. Depression and apprehension may be observed here and the sufferer may complain of aching haemorrhoids that are very sensitive to touch. Symptoms are worse from heat and better from motion.

Calc carb

Constipation associated with mental or physical overwork often responds well to Calc carb. The stools here may be large, chalky and hard at first and then pasty, becoming liquid. There may be sour eructations, abdominal distension and a history of anal prolapse, as well as a desire for indigestible things. Symptoms are worse from cold and better from passing flatus.

Platina

This a useful remedy where the constipation is associated with travelling. There may be an associated abdominal colic. Stools here are often described as scanty, evacuated with difficulty and being like soft clay that sticks to the rectum. Symptoms are worse from sitting or standing and better from walking.

Hydrastis

This remedy has been very useful in cases where atonic constipation has resulted from the overuse of laxatives. The stools here are small, hard and fragmented. There is often a weakness of digestion and liver congestion apparent here, in addition to anal fissuring, rectal prolapse and haemorrhoids. Bowel movements are associated with spasms, and a smarting rectal pain that lingers long after the passing of stools. Symptoms are worse from cold air and better for pressure or rest.

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ARTICLE

Can autism *be treated successfully with homoeopathic medicine?*

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The Homoeopathic Health & Wellbeing Practice.

Introduction

I had just finished reading a book on treating autism and was in the middle of reading another when the opportunity to assist a three-year old boy with autism arose at my clinic. Martin's* mother Kate had made an appointment for his chronic ear infections as there had been no improvement in them after five rounds of antibiotics. Armed with enthusiasm, insight and encouragement from my reading material, I relished the opportunity to speak with Kate about how we could treat Martin's overall well-being, including his ear infections. Kate was amazed and excited by the possibilities presented.

The following case history about a three year-old boy clinically assessed as autistic and his treatment with homoeopathic medicine.

*To protect the family's privacy, the true names of the mother and son have been changed.

What is autism and how is it assessed?

The term Autism Spectrum Disorder (ASD) includes autism, autistic disorders, Asperger syndrome and pervasive developmental disorder not otherwise specified (PDD-NOS). Autistic spectrum disorders are deemed to be lifelong developmental disabilities in social interaction, impaired communication, restricted and repetitive interests and behaviours, and sensory sensitivities. The range of severity of the difficulties varies greatly. The Victorian branch of Autism Australia, Amaze,[1] estimates that ASD affects one in 100-110 people, with four times as many boys being affected as girls. Medically, it is deemed to be a lifelong disorder with no cure.

The Diagnostic and Statistical Manual of Mental Disorders, DSM1V, states that a total of six or more impairments from the following categories is needed for a person to be classified as having autistic disorder:[2] *(see Table 1)*

Presentation

Martin made very little eye contact and, absorbed in his own world, he demonstrated an unusual walk, head tilted to one side with occasional flapping of his hands. Spasms seemed to move through his body in a downward fashion which reinforced what Kate would describe as a 'drunk walk'.

As Martin entered the consultation room he sat on Kate's lap, his eyes rolling upward. He didn't speak but sounded cranky, with an irritable murmur and grunting. Martin was constantly putting his fingers into his ears, nose, eyes and bottom. He had had a runny nose for two months which was worse in the mornings.

According to Kate, Martin is extremely sensitive to noise. He holds his hands up to cover his ears and screams if Kate tries to vacuum the carpets or use the mixmaster or his father mows the lawn.

He seemed to be obsessed with anything linear - a drawn line or a linear structures such as stairs, the edge of a door or

table and even the drink coaster in the consultation room. Martin would visually fixate on all of these, with his head tilted to one side.

Martin's paediatrician had diagnosed possible autism in December 2012 after his parents became concerned that he wasn't speaking, was not responding to his name being called and regularly screamed uncontrollably. Martin was referred for assessment by the Child Development Unit at the local children's hospital. He was assessed by the developmental paediatrician and Head of the Child Development Unit, the senior occupational therapist and a social worker. Their diagnosis was consistent with that of DSM-IV TR autism.

All organ function tests were normal except for an elevated TSH level of 7.17 (normal range 0.33-6.70). Martin's hearing test showed a normal result. Martin was vaccinated when he was six months old. Kate withdrew him from the vaccination schedule after a rash developed on his back two weeks after his last vaccination.

Socially, Martin doesn't know how to interact appropriately with other children. He will either ignore them totally or hug and kiss them. Usually he occupies himself in his own solitary world. He ignores adults unless he knows them well, but adores babies.

Martin's mother had a normal pregnancy. On delivery his head was tilted to one side. He was small at 2.7kg, appeared healthy and breathed normally. However Kate commented that it was a very stressful time for her and her husband when Martin was born and there were lots of arguments.

Martin eats a wide variety of foods but can't chew. All food has to be mashed and his mum has to feed him. He has an aversion to anything new, be it food or a new pair of shoes. He loves puzzles and piggy-back rides. He learns quickly and will remember things even if shown only once.

He sleeps well at night with heavy perspiration to his head. His hair is quite wet in the mornings, as if he is just out of the shower.

The homoeopathic treatment

My first homoeopathic medicine was given in 30c potency every second day for four doses with a follow-up booked for three weeks. This prescription was given to begin detoxification while I did further research.

At the follow-up appointment Martin appeared to be more alert, with his eyes open and bright.

Table 1. DSMIV Criteria for Autistic Spectrum Disorder

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):			
(1) qualitative impairment in social interaction, as manifested by at least two of the following:			
(a) marked impairment in the use of multiple nonverbal behaviors, such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction	(b) failure to develop peer relationships appropriate to developmental level	(c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)	(d) lack of social or emotional reciprocity
(2) qualitative impairments in communication, as manifested by at least one of the following:			
(a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)	(b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others	(c) stereotyped and repetitive use of language or idiosyncratic language	(d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level
(3) restricted, repetitive, and stereotyped patterns of behavior, interests, and activities as manifested by at least one of the following:			
(a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus	(b) apparently inflexible adherence to specific, nonfunctional routines or rituals	(c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting or complex whole-body movements)	(d) persistent precoccupation with parts of objects
B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.			
C. The disturbance is not better accounted for by Rett's disorder or childhood disintegrative disorder.			

Then the homoeopathic simillimum most fitting to Martin's overall case presentation was given in a 200c potency once a day for two days only, with a follow-up scheduled for three weeks time.

Martin's mother Kate reported that after being given this medicine, Martin began swearing angrily. Kate noted that he told her to 'F... Off' five times in one day. In fact he told everyone to 'F... off' and said it in the right context. He began repeating whatever Kate said, adapted to three or four word sentences, and his therapists commented on this change. Kate also observed that her son was more engaged with his therapists during their sessions, was waking up in the morning happy and not as sweaty as before. He had more energy and for one week his sensitivity to noise was less acute. The medicine was repeated and again there was a significant improvement in speech and pronunciation with a few 'f-words thrown into the mix'. He had started understanding and answering questions rather than just repeating them, talking and feeding himself, and having a shower with Kate and loving it.

21/1/13. As Martin was beginning to tantrum a lot more, his eye contact had reduced, he had become obsessed with lines again and no other significant improvements were evident, I gave the indicated medicine 1/x day for two days in 1M potency. This was repeated on 11/3/13. After that Martin was interested in reading books. His vocabulary was expanding. He remembered everything. 'He no longer screams when I use the Mixmaster.' He will say, 'almost done?' He has even more energy and wants to stay up late at night. There is a willingness to try new foods and he is very excited about being able to jump with both feet. The obsession with lines remains.

22/4/13. Martin was given two doses of the 10M potency of his medicine as his sinuses were blocked and his obsession with lines was still quite prevalent. A change in potency of the selected homoeopathic medicine was now expected to result in improvement in these areas of Martin's health and development.

On his next follow-up (3/06/13) it was reported that Martin had been quite grumpy for five weeks. Many of his symptoms had returned in aggravated form, yet there had been considerable improvement in other aspects of his development. (Homoeopaths know that the return of old symptoms is a welcome sign that things will again improve considerably once the aggravation subsides.) Tantrums, hand flapping, rolling of the eyes, itchy ears, facial squinting and verbal stemming all increased over this period but reduced after that. Martin's sinuses cleared following this potency and improvements were noticed in his social and motor skills. Kate noted that Martin has been friendly with a little girl in his play group, inviting her to play with him on the car, he was now toilet trained, and no longer needing to go with his father to the bathroom. Loud noises such as the vacuum cleaner, lawn mower or mixmaster no longer bothered him and he had recently helped Kate put the vacuum cleaner away. He was now able to ride his bike and jump off the stairs with confidence, and to chew his food.

Since there had been such a long aggravation after this potency I decided to wait before repeating the dose again.

On the next follow up appointment (1/7/13) it was reported that Martin had had flu, with similar aggravations to those observed at his appointment on 3/6/13. His social engagement had also been affected. The 10M potency was again repeated for two doses.

The subsequent two follow-ups, which I elected to do by email, revealed that an itchy skin rash had returned, which was the same kind that Martin used to get on his legs and bottom between the ages of twelve months and two-and-a-half years. This was a welcome sign, as any return of old symptoms represented an excellent unravelling of Martin's case and was indicative of his immune system being challenged again. There was also some constipation after his father had been upset with him, at which Martin had become quite stressed. This cleared with another dose of the medicine and Martin became happy again.

Kate also reported that Martin could now chew his food perfectly and now play jokes on her and her husband by deliberately swapping their names around and laughing about it. Martin's obsession with lines and his body spasms, now limited to his head and not affecting his entire body, had considerably reduced but not yet quite resolved. The 50M potency was then given once a day for two doses.

After this prescription Martin and Kate both had flu and a fever of 39°. Kate elected to go to the doctor for antibiotics. Martin has just had his fourth birthday.

After the antibiotics Kate reported that Martin had regressed in terms of his speech and repetitive behavioural habits. He was using words out of context, without making sense. He was clearly out of sorts, screaming about having a bath and getting his hair combed, and not wanting to play. The indicated homoeopathic medicine was repeated. Subsequently Kate reported that his mood, social interactions and language development improved. Before coming for a follow-up appointment on 23/9/13 Kate was clearly delighted to see her son happy and initiating play with his three-year old cousin on their trampoline.

Today in the clinic Mark was engrossed with his iPad. He is learning the process of making paper planes. He said to me, 'Paper number 1, paper number 2!' Martin's spasms and obsession with lines were now increasing in frequency. Kate also noticed that Martin continued to appear uncoordinated when he ran, his body was turned slightly sideways, his knees sometimes gave way and his hands were hanging loose as if not attached

to his body. The CM potency was given once a day for two days with a follow up appointment booked for two weeks later.

Recent blood tests show that Martin's thyroid function was now within the normal range: the reading for his TSH level was 5.65 mIU/L, reduced from 7.17 (his reading before homoeopathic treatment).

Discussion

Although this case is still in progress, the clinical observations and interactions of this child after homoeopathic treatment appear to have resulted in considerable improvement in cognitive function, social interaction and language development. There has also been a great improvement in muscle strength, a complete resolution of sensory sensitivities and a considerable reduction in repetitive and ritualistic behaviours.

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Interview with *Manuela Malaguti-Boyle*

Manuela Malaguti-Boyle, PhD candidate, ND, FIO is an Integrative Medicine Health Care Practitioner with a certification by the Institute of Integrative Medicine in integrative oncology. Manuela practices Integrative Oncology in Brisbane and on the Gold Coast. She is also an accomplished national and international speaker and the author of dozens of articles published in peer reviewed- journals in Australia, United Kingdom and United State. Manuela works cooperatively with Bioconcepts and Henry Osiecki providing Australia-wide counseling for Health Care Practitioners supporting cancer patients.

What role does integrative medicine play in cancer treatment?

The field of Integrative Oncology is fairly new but has exploded in recent years and become more and more specialized. While conventional oncologists focus on destroying cancer cells, the integrative oncologist concentrates on the terrain, making it as inhospitable as possible. As such, I look at the cell biology and biochemistry of cancer cells and apply my knowledge to the prevention and management of malignancies. Cancer is an immensely complex problem, so it is necessary in my view to maintain a firm understanding of the biochemical and physiological determinants of this disease. The focus, particularly in reference to nutritional treatment, is to provide an environment that creates increasing obstacles to aberration and facilitates normal cellular energetics and tissue environment. Additionally, I strive to empower the patient, by establishing functional cooperation towards improving quality of life and implementing targeted changes in diet and lifestyle.

I use functional testing and other assessment methods, and work in association with medical oncologists and radiation oncologists. Therefore my understanding of drug/herb/nutrient interactions is very sound.

"In fact, cruciferous vegetables such as broccoli, cauliflower and cabbage contain a cancer-preventing compound so potent that is being investigated as a chemotherapy agent."

What are the limitations, if any, of chemotherapy?

Considerable evidence suggests that dietary components are important determinants of cancer risk and tumour behaviour. There are many determinants to be taken into consideration when creating dietary changes. For example, genetic polymorphism can alter the response to dietary components by influencing the absorption, metabolism or site of action. Generally, phytochemicals have great potential in cancer prevention because of their safety, low cost and bioavailability. In fact, cruciferous vegetables such as broccoli, cauliflower and cabbage contain a cancer-preventing compound so potent that is being investigated as a chemotherapy agent. Berries are rich in beneficial phytonutrients and antioxidants. Overall, a diet that emphasizes fruits and vegetables, whole grains, nuts, and cold water fish that provide omega-3 fatty acids (fish eaters have a reduced risk of cancer) is the best nutritional strategy.

What strategies do you prefer to counter the side effects of conventional cancer treatment?

Many of the common chemotherapeutic drugs initiate either apoptosis or necrosis of cancer cells through a free radical mechanism. Chemotherapy kills cells by increasing the oxidant state of the affected cells. Regulating the oxidant state and maintaining mitochondrial function with specific antioxidants shifts the tumour to apoptotic mechanisms. This reduces the side effects associated with chemotherapy. It is important to remember that the effectiveness of chemotherapy depends on the intrinsic nature of the cancer cells.

For example, if a tumour is hypoxic or mitochondrial function is compromised, chemotherapy will be of limited use. The observed initial shrinkage of the tumour mass is usually the evidence of the killing of the most susceptible cancer cells, which have normal mitochondrial function, leaving cancer stem cells to become resistant.

Tell us about the importance of mind/body approaches in cancer treatment.

The neurotransmitters adrenaline, noradrenaline, and acetylcholine of the autonomic nervous system act as a powerful upstream regulators that orchestrate numerous cells and tissue function by releasing growth factors, angiogenic factors, arachidonic acid and other pro-inflammatory cytokines. Physiological stressors activate the sympathetic nervous system and research has shown that stress induced neuroendocrine activation increases the expression of inflammation and pro-metastatic genes such as Cox2, MMP9 and VEGF and other growth-factors. Learning mind body techniques such as guided imagery, hypnosis, mindfulness, stress, reduction, and yoga helps decrease stress.

Manuela is one of the keynote speakers in the Oncology stream at the forthcoming International Congress on Naturopathic Medicine to be held in Paris from the 4th to the 6th of July 2014.

IN THIS SECTION WE INTRODUCE ARTICLES BY STUDENTS OF NATURAL MEDICINE IN AUSTRALIAN COLLEGES AND UNIVERSITIES. THESE ARTICLES HAVE BEEN SELECTED BY THEIR TEACHERS AND LECTURERS AS OUTSTANDING EXAMPLES OF STUDENT RESEARCH

The role of *natural medicine in public health: Alcohol and violence in Australia*

Anna Moon | BClSc, Masters of Osteopathic Medicine candidate

On a recent trip to Sydney I observed a number of electronic road traffic signs that flashed *… Welcome to Kings Cross. 1:30am lock outs, bars and clubs, and 3am last drinks now in place.* A flood of measures have recently been introduced to Sydney's nightlife scene in an attempt to curb-alcohol fuelled violence. It has been described as a knee-jerk reaction to the current media and government focus on alcohol-fuelled violence following the very public deaths of teenagers Thomas Kelly (aged 18, killed in Dec 2012) and Daniel Christie (aged 18, killed on New Years Eve 2013), both in unprovoked attacks while out drinking. Public pressure is on the government, health services and law enforcement to address community safety at late night venues[1].

Alcohol consumption in Australia is considered one of the highest in the world, with an average 10.02 litres of pure alcohol consumed per capita. To put that into perspective, the Republic of Moldova rates with the highest consumption at 18.22 l/per

capita and Afghanistan with the lowest consumption at 0.02L/per capita[2].

In 2011 the World Health Organisation released the latest Global status report on alcohol and health[2]. Worldwide, alcohol abuse is a major contributor to death, disease and injury, with negative health consequences for the person dependent on alcohol, risk to others from the dangerous behaviour of alcohol abusers, and the impact on foetus and child development. Almost 4% of all deaths worldwide are attributed to alcohol, a greater number than deaths caused by HIV/AIDS or tuberculosis. In Australia in 2008, 10.5 million people were negatively affected by the drinking behaviour of a stranger.

Alcohol abuse has been directly linked to major diseases that include psychiatric disorders, GIT disorders (including liver cirrhosis and pancreatitis), cancer, suicide, violence, unintentional injuries, cardiovascular disease, foetal alcohol syndrome, pre-term birth complications, and diabetes mellitus. Alcohol consumption has also been linked to infectious diseases due to its ability to weaken the immune system, making heavy drinkers more susceptible to pneumonia and tuberculosis, as well as HIV/AIDS (although it has been speculated that the last of these also correlates with alcohol abuse and risk-taking behaviours) (WHO 2011). It is estimated that the detrimental alcohol consumption costs the Australian community $15 billion in the form of impacts on public safety, family violence, workplace productivity, household functioning and road accidents[1].

The causes of alcohol-fuelled violence in Australia are complex, highly debated and altogether uncertain. The Australian Institute of Criminology has published a summary paper on what they believe to be the key issues in the relationship between alcohol and violence. This summary follows the every growing body of literature[3-6] that views the complex interaction as a number of personal, cultural and environmental variables, including:

ALCOHOL ABUSE HAS BEEN DIRECTLY LINKED TO MAJOR DISEASES THAT INCLUDE PSYCHIATRIC DISORDERS, GIT DISORDERS (INCLUDING LIVER CIRRHOSIS AND PANCREATITIS), CANCER, SUICIDE, VIOLENCE, UNINTENTIONAL INJURIES, CARDIOVASCULAR DISEASE, FOETAL ALCOHOL SYNDROME, PRE-TERM BIRTH COMPLICATIONS, AND DIABETES MELLITUS.

- The pharmacological effects of alcohol on the cognitive, affective and behavioural functioning of the drinker which can impact impulsive risk-taking behaviour (aka 'liquid courage'), reduce the consideration of the consequences of their behaviour makes them more emotionally reactive, gives them a distorted interpretation of events and an inability to resolve incidents verbally

- Individual characteristics including age, gender, personality traits, a predisposition to aggression, deviant attitudes and expectations of the drinker about the effects of alcohol and acceptable behaviour while intoxicated

- Effects of the drinking environment including factors such as crowding, permissiveness of violent behaviour, the staff enforcing of Responsible Service of Alcohol laws

- The attitudes and values of the society about the culture of drinking to deliberately become intoxicated, using alcohol as an excuse for poor behaviour and as an excuse to remove responsibility for their actions

Others place weight on the rise in violence on television, movies and video games and the never before experienced exposure of the younger generation to this everyday 'acceptable' violence[7]. Yet some suggest that a central core issue to alcohol-fuelled violence is a challenged display of masculinity[8].

A group of Australian university students were interviewed as to why they binge drink, and their responses shed some light on why curbing alcohol abuse is proving to be a difficult task[9]. Reponses included: social activity, celebrations, end of the week, to cope with problems, to explore adult behaviours, increased freedom, facilitates peer relations, and the resounding answer that 'drinking is fun.' It presents an opportunity for social interaction and creating a sense of belonging – creating a social identity[10] and is often seen by some youths as a rite of passage[6]. On the same trip to Sydney a friend's 10 year old autistic son announced that he can't wait to be 18 so that he can get drunk. When asked why, he answered 'because that's what dad does.'

'Although 80% of Australians acknowledge that Australia has a national drinking problem, it does not necessarily follow that the public will support increased regulation of a popular, regularly consumed commodity which appears integral to the national culture.'[11]

One area in particular that has come under public scrutiny is the relationship Australians have between sporting events and drinking alcohol[6, 12]. Sport and alcohol are both proud Australian traditions, and drinking is deeply ingrained in the sporting landscape from sports team sponsorship, advertising at sporting arenas, and advertising on prime time television during games. However, in 2009 the Alcohol Education and Rehabilitation Foundation conducted a national survey of 1030 people aged over 18 years on their opinions about alcohol and its association with sporting events. Seventy three percent of respondents wanted to see the connection reduced during 'family viewing time (before 9pm)' and more than half thought that alcohol advertising shouldn't even be allowed in the sporting arenas because it would then be viewed on television. The general consensus was that young people are beginning to see drinking as 'part of the game' and that sporting personalities are not seen as 'good role models for safe alcohol use.' Six percent of those surveyed thought that sport would suffer if changes were implemented as a result of reduced advertising and sponsorship revenue[11].

'Although 80% of Australians acknowledge that Australia has a national drinking problem, it does not necessarily follow that the public will support increased regulation of a popular, regularly consumed commodity which appears integral to the national culture.'

In June 2009, the National Preventative Health Task- Force presented the Federal Minister for Health and Ageing with a comprehensive package of recommendations across several key policy areas to reshape the drinking culture in Australia and reduce the harm from alcohol, so that Australia can begin the next decade as the 'healthiest country'[13]. It was to address preventative measures aimed at obesity, tobacco and alcohol abuse. It believes that we need to address the cultural place of alcohol in Australia if change is to be made.

The former New South Wales Premier Barry O'Farrell[14] implemented a number of attempts to control – randomized breath testing, low blood alcohol levels for driving, increased taxes on alcoholic beverages, especially alcopops and the more recent 1am lock-outs and 10pm closing of bottleshops[1,8] and the most recent compulsory jail time for six different offences when the offender is under the influence of alcohol or drugs[15].

So what is our role as natural medicine practitioners in this public health issue? Moodie et al (2008) proposed that primary health care practitioners are in a strong position to help patients make healthier choices regarding alcohol consumption by supporting a popular push towards dealing with the issue through education and public information[16]. However, in the book *Swimming with crocodiles: the culture of extreme drinking* (2008), Martinic and Measham discuss their research that shows young adults are aware of the negative consequences of binge drinking mentioned by Lindsay (2012) such as throwing up, passing out, loss of memory, violent altercations – domestic or public, but because the positive experiences associated with binge drinking are more common and outweigh the negative, they are already making educated and informed decisions to drink to intoxication. This statement counteracts the approach aimed at educating the public to the risks of drinking heavily, because it is based on the assumption that they are ignorant to the risks, when in fact Lindsay (2012) says they already know.

In 'A Rum State'[17] the history of alcohol, society and alcohol policy is reviewed. It shows a complex history in which our relationship with alcohol as a society constantly fluctuates. It is very much a cultural identity that has really only ever taken to decreasing in times of economic crisis (both world wars and the depression), despite government attempts to control it through legislation. Fry (2010) believes we need to challenge the current display of 'drunkenness-related anti-social behaviour' by 'culturally repositioning alcohol within our society' – for example, our previous discussion of alcohol's role in sports sponsorship or looking at how alcohol is portrayed in the media and how this influences people's perception of alcohol consumption and alcohol-related behaviours[6].

In researching this essay, I came to think Fry (2010) and Moodie et al (2008) are on the right path. That legislation may help to contain alcohol abuse and its tendency towards drunken behaviour and violence, especially in certain trouble zones such as Kings Cross in Sydney, but it won't change the opinion and perception of the younger generation. I think as natural medicine practitioners we are in an advantageous position to help influence the younger generation and help change the public perception of alcohol within our society. With the older generation who may already be irreversibly stuck in their ways, we should continue to educate and encourage better behaviours and health related decision making. The difficult issue with that statement is that I also believe that to do this we should lead by example, which means curbing our own drinking habits and perception of its role in our lives.

Now, who needs a drink?

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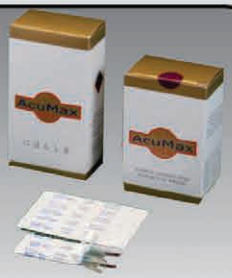

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PRACTITIONER PROFILE

ATMS Member Interview

Karen Jones | MEMBER NO 13707

After becoming very interested IN natural health and how the body functions I decided to do a Certificate Course in Swedish Massage at Endeavour College, Woolooware in 1999.

Becoming even more intrigued and finding a new passion unfolding I decided to enrol in the Diploma of Remedial Massage, which I completed in 2001.

During that time I also completed a certificate course in Sports Massage.

While I was studying I decided to follow my passion, take the risk and resign from my employment as a legal secretary for fifteen years, and began working as an assistant to a local osteopath, Eric Ambler. Working with Eric was fantastic hands-on experience.

After working with Eric for approximately two years I was offered a small room in a local beautician's salon at $100 per week. I hadn't quite completed my diploma but was advised by one of my lecturers to go for it. She said I had what it takes and that I just needed to be confident in myself and to keep following my passion. So I did! I would work for Eric during the day and massage clients in the evenings in my new little room. I became busy with my own clients and left my position with Eric, reaching out of my comfort zone once again. I was scared but very excited. To this day my first ever client is still receiving treatments from me.

"For years I have had a dream to have my own wellness centre and to offer to others whatever I can to help them on their path, to enlighten them and to ease their pain and suffering through massage and Reiki, and to introduce other modalities"

Due to a marriage breakdown and being the mother of two infant children I needed to supplement my income. I was determined to continue on with my passion, even though the temptation to return to legal work was great. I was actually hunted down by one of my lecturers who was an assistant to our principal, Sandra Grace, an osteopath and chiropractor, to take over from her as Sandra's assistant. As well as working from my little room and establishing a clientele, I also worked two days a week as assistant to Sandra Grace and Jane Graves at Sylvania Chiropractic. I was asked if I would like to rent space there doing my full remedial massage treatments, which I accepted. So, as it turned out, I took it all on: working again as an assistant and carrying out my massage treatments at both locations.

After re-establishing my life, and needing to be available for my school-age children, I decided to refinance my mortgage, and had a room built on the back of my garage to accommodate a treatment room so I could work from home. This turned out to be very successful and worked well, enabling me to be at home and present for my children. Being able to carry out domestic duties in between clients really worked for me at that time.

After completing a course at a local college for CPE's I was approached by the principal to lecture in components of the Remedial Massage Diploma. I attained my Cert. 4 in TAA and began lecturing two nights a week. This became another passion. I taught for approximately three years and to me it was very natural. I found it was merely a way of sharing knowledge with a manual to go by.

I have since written workshop manuals for Indian Head Massage and Hot Stone

Massage, and have enjoyed teaching these disciplines in workshops.

In 2002 I studied Reiki 1 and Reiki 11 and in 2012 I became a Reiki Master. I have also held Reiki workshops.

Five years ago I suffered some heavy-duty hardships after having fallen down stairs and receiving multiple avulsion fractures to my foot. It took me quite some time to recover from that injury. I needed to work to survive. I worked for three months wearing a moonboot.

I also experienced difficulties in my personal life at this time, including the death of my father from mesothelioma, which necessitated my selling my home. In January 2012 I began renting a room from a colleague in Caringbah, and was so grateful she made it available for me.

I registered a business name "Heaven on Earth Holistic Therapies" and began trading under that name when I began working at Caringbah.

After doing a lot of work on myself and my self-worth, and with help through counselling, reading many self-empowerment books, meditating and becoming increasingly spiritually enlightened and evolved I am now happy to say that I am feeling very at peace with myself and life. I'm now aware of what the word "joy" means! I know my life purpose is to be a healer and teacher of healing.

I am currently studying a Diploma of Holistic Counselling at Naturecare College.

For years I have had a dream to have my own wellness centre and to offer to others whatever I can to help them on their path, to enlighten them and to ease their pain and suffering through massage and Reiki, and to introduce other modalities. I am now so excited that my dreams are coming to fruition. I have just very recently taken another risk and signed a lease on premises in Cronulla. Though still in very early stages of having it up and running my feelings are the same as they were fifteen years ago when I left my position as a legal secretary to follow my passion, I am scared but I am excited and I'm going with it.

Heaven on Earth Holistic Therapies has come up in the world and will be having lots to offer very soon. It's located at 1/2 Laycock Avenue, Cronulla.

I would have to say that my major influence would have been my father. Before I studied massage I would occasionally give him a massage and he always encouraged me to "do something about my gift". He always showed interest in my learning and was always very encouraging and just as inquisitive as me. I feel he's still around encouraging me and helping me with my purpose.

Other influences would have to be the rewarding, satisfying feeling of being able to make a difference in someone's world of suffering. Receiving text messages or emails after treatments from clients is quite overwhelming. When business grows through word of mouth then I know I must be doing something very worthwhile.

Being a natural medicine practitioner definitely is the way for me. I have found many pleasurable moments of satisfaction in being able to help others. Having awareness of natural medicines has helped me in my own health and growth. I am forever fascinated at how the body and mind work and how they can heal themselves with the help of natural medicines and therapies.

The advice I would give a new practitioner starting out would be to "stick with it". If you have a desire, a passion and a willingness to be able to help others then give it your all. Don't give up. There are always obstacles placed on our path. Sidestep them, push them down, do whatever it takes to be where you want to be… keep your dream alive, learn as much as you can, share it, and mainly believe that you are here for a reason, a purpose, to be a healer. Pay attention to your intuition. But most of all, look after you, keep your mind, body and soul fit and healthy, learn to preserve and protect your self. Make sure you have "me time". You need to be at your best to be able to help others be at theirs.

I AM FOREVER FASCINATED AT HOW THE BODY AND MIND WORK AND HOW THEY CAN HEAL THEMSELVES WITH THE HELP OF NATURAL MEDICINES AND THERAPIES.

My future ambition is to be successful in my own new wellness centre in Cronulla; to bring about change in my local community by helping others to evolve; to make my centre a safe, nurturing place where people who are suffering can be treated through massage and other modalities and meditation and to resume facilitating workshops; to complete my Diploma in Holistic Counselling; and to help and guide others to bring about change in their lives so they can enjoy walking their path with ease, and to help them to be the best they can be.

"Heaven on Earth is a state of grace that becomes a place in which we can live"

Heaven on Earth
holistic therapies

Leases: *know your way around your rights and obligations*

Ingrid Pagura | BA, LLB

Many of us have a lease for the premises where we run our business. However, we may not be aware that there is legislation controlling that lease and that a lease is a contract, which once signed is binding on both parties. The lease generally determines your rights and obligations and you should ensure that the things you want to be able to do in the premises are spelt out in the lease. If this right is not set out in the lease your landlord's agreement will be required, and this could be refused.

Always consider including your rights to put up signage, shelves or partitions, to use any common areas and have access to the toilets. Remember to find out about access to the premises out of hours, and whether the premises come with allocated parking.

The Retail Leases Act 1994 covers leases for a person who has their business in a shopping centre. Generally, if you have a shop front and the place is used primarily to sell goods and services to the public you may be covered.

Here are some things to be aware of when negotiating your lease:

Tenancy mix and competition

What other businesses are nearby? Will they complement or compete with your business? Including a clause in your lease to protect your business against the landlord changing the tenancy mix is a good idea. An exclusivity of trade clause in your lease prohibits direct competition and gives you the sole right to conduct that type of business in the cluster of shops controlled by the landlord.

Permitted Use

Leases often limit the permitted use of the premises to certain activities. Check the lease for details about the type of business activities the landlord will permit in the premises. Ensure it allows for the growth and evolution of your business.

Fixtures and fit-out

Get a detailed condition report on the premises you want to lease before entering into the lease. This report should document the condition of the premises at the time you take control and before you make any changes. Also, take date-stamped photographs and print three sets (one for yourself, one for the landlord, and a spare) for a visual record in case a dispute arises.

Many premises will need fixtures, fittings and services installed before you can start to operate your business. The responsibility for the fit-out costs will be determined by agreement between the tenant and the landlord. Make sure you negotiate, as much as possible, for fit-out items that are at your cost to remain your property so that they can be removed by you when the lease ends.

Sometimes the landlord will specify which tradespeople must be used. This requirement is to protect the quality and image of the shopping centre or premises.

Handover dates and fit-out periods

Some leases allow the landlord to bring forward the date for handing over the premises to the tenant (handover date) to enable the tenant to undertake their fit-out.

Many leases contain 'make good' clauses that require tenants to reinstate the premises to the condition they were in at the start of the tenancy. This 'make good' clause generally requires the tenant to remove their fit-out at a considerable cost to the themselves. Where the fit-out was already in place at the time the tenant entered the lease, the tenant should attempt to have any requirement to make good removed, other than a general obligation to leave the premises in good repair, clean and tidy.

Term of lease and option to renew

Ensure that your lease term is long enough to enable you to recoup your investment and make the profit that you require. The length of the term of the lease is a critical issue because much of the good will of a business could be attached to the leased premises, and once the lease ends, the tenant's right to remain there is at the discretion of the landlord. If the landlord refuses to renew the lease, the good will of the business could be significantly reduced, or completely gone. Negotiate flexibility into the term and options of the lease to suit your business circumstances. For a new business

"Be aware of default clauses that give the landlord the right to evict the tenant if the rent is not paid within seven days of the due date, whether or not notice of the non-payment of the rent has been given to the tenant."

taking on a long lease seems appealing but may encumber the tenant with a lease for a business that no longer exists. Shorter leases with options to renew give you more flexibility.

Providing you are not in default, an option in a lease gives you the choice to continue trading in the current location to the end of the full lease term. The landlord must extend your lease if you exercise your option on time and in the correct manner. Options are exercised between three and six months before the end of your lease. If you miss the due date, or don't exercise the option in the manner set out in the lease, the landlord is not obliged to renew your lease. The landlord can also give you notice to leave, or change the terms of the lease, including increasing your rent.

Refurbishment

Some leases require the tenant to refurbish the premises at regular intervals. Renovating your business premises can benefit your business image, but can impose a significant cost on the business. Try to limit refurbishment to every five or six years. Make sure that the lease clearly sets out the nature, extent and timing of the refurbishment.

Repairs and maintenance

Often the tenant is responsible for general repairs and maintenance. Try to exclude structural repairs and capital items from the tenant's obligations. Be specific about which items you require the landlord to be responsible for, like the roof and air-conditioning.

Default

Be aware of default clauses that give the landlord the right to evict the tenant if the rent is not paid within seven days of the due date, whether or not notice of the non-payment of the rent has been given to the tenant. It is a good idea to negotiate for a requirement that at least 14 days written notice must be given to the tenant before there are any consequences. A typical consequence under a lease is, when a tenant defaults, for the landlord to have the right to re-enter and take back the premises.

Assignment of lease

Ensure your lease allows you to assign the lease (transfer from one tenant to another) or sublet the whole, or part, of the premises in case you decide to sell your business, or can no longer operate it.

Relocation and redevelopment clauses

A redevelopment clause usually entitles the landlord to terminate a lease before it ends in order to carry out major works to renovate or redevelop the building. Without premises, your business may be forced to close or suffer a loss in sales and unforeseen expenses if relocation becomes necessary.

Generally, a proposed tenant should not agree to include a redevelopment clause in the lease. If you decide to agree to a redevelopment clause, the clause should provide for you to be compensated so that you are placed in the same position as if the redevelopment were not to occur.

Always read the lease carefully before you sign it. Get some legal advice so that you are sure of your rights and obligations. Ask around and find out how long the premises have been empty and what sort of business was there before you. This could strengthen your bargaining power.

Acupuncture and TCM

Yang Q, Xie Y-D, Zhang M-x, Huang B, Zhang C, Li H-Y, Zhang R, Qin M1, Huang Y-X, Wang J-J.

Effect of electroacupuncture stimulation at Zusanli acupoint (ST36) on gastric motility: possible through PKC and MAPK signal transduction pathways. BMC Complementary and Alternative Medicine. 2014, 14:137

Background

Electroacupuncture (EA) stimulation has been shown to have a great therapeutic potential for treating gastrointestinal motility disorders. However, no evidence has clarified the mechanisms contributing to the effects of EA stimulation at the Zusanli acupoint (ST.36). This study was designed to investigate the regulative effect of EA stimulation at the ST.36 on gastric motility and to explore its possible mechanisms.

Methods

Thirty Sprague-Dawley rats were randomly divided into three groups: the ST.36 group, the non-acupoint group, and the control group. EA stimulation was set at 2 Hz, continuous mode, and 1 V for 30 min. The frequency and average peak amplitude of gastric motility were measured by electrogastrography. The protein kinase C (PKC) and mitogen-activated protein kinase (MAPK) signaling pathways were assessed using real-time polymerase chain reactions. Caldesmon (CaD) and calponin (CaP) protein expression in the gastric antrum were detected on Western blots. A Computed Video Processing System was used to evaluate morphological changes in smooth muscle cells (SMCs) from the gastric antrum.

Results

EA stimulation at ST.36 had a dual effect on the frequency and average peak amplitude. Additionally, EA stimulation at ST.36 regulated the expression of some genes in the PKC and MAPK signaling pathways, and it regulated the expression of the CaD and CaP proteins. EA serum induced SMC contractility. Promotion of gastric motility may correlate with up-regulation of MAPK6 (ERK3), MAPK13, and Prostaglandin-endoperoxide synthase 2 (PTGS2) gene expression, and the down-regulation of the collagen, type I, alpha 1 (COL1A1) gene and CaD and CaP protein expression. Inhibition of gastric motility may correlate with down-regulation of the Interleukin-1 receptor type 2 (IL1R2) and Matrix metalloproteinase-9 (MMP9) genes, and up-regulation of CaD and CaP protein expression.

Conclusion

EA stimulation at ST.36 regulated gastric motility, and the effects were both promoting and inhibiting in rats. The possible mechanisms may correlate with the PKC and MAPK signal transduction pathways.

Gadau M, Yeung W-F, Liu H, Zaslawski C, Tan Y-S, Wang F-C, Bangrazi S, Chung K-F, Bian Z-X, Zhang S-P.

Acupuncture and moxibustion for lateral elbow pain: a systematic review of randomized controlled trials. BMC Complementary and Alternative Medicine. 2014, 14:136

Background

Acupuncture and moxibustion have widely been used to treat lateral elbow pain (LEP). A comprehensive systematic review of randomized controlled trials (RCTs) including both English and Chinese databases was conducted to assess the efficacy of acupuncture and moxibustion in the treatment of LEP.

Methods

Revised STRICTA (2010) criteria were used to appraise the acupuncture procedures, the Cochrane risk of bias tool was used to assess the methodological quality of the studies. A total of 19 RCTs that compared acupuncture and/or moxibustion with sham acupuncture, another form of acupuncture, or conventional treatment were included.

Results

All studies had at least one domain rated as high risk or uncertain risk of bias in the Cochrane risk of bias tool. Results from three RCTs of moderate quality showed that acupuncture was more effective than sham acupuncture. Results from 10 RCTs of mostly low quality showed that acupuncture or moxibustion was superior or equal to conventional treatment, such as local anesthetic injection, local steroid injection, non-steroidal anti-inflammatory drugs, or ultrasound. There were six low quality RCTs that compared acupuncture and moxibustion combined with manual acupuncture alone, and all showed that acupuncture and moxibustion combined was superior to manual acupuncture alone.

Conclusion

Moderate quality studies suggest that acupuncture is more effective than sham acupuncture. Interpretations of findings regarding acupuncture vs. conventional treatment, and acupuncture and moxibustion combined vs. manual acupuncture alone are limited by the methodological qualities of these studies. Future studies with improved methodological design are warranted to confirm the efficacy of acupuncture and moxibustion for LEP.

Herbal Medicine

Beppe GJ, Dongmo AB, Foyet HS, Tsabang N, Olteanu Z, Cioanca O, Hancianu M, Dimo T, Hritcu L

Memory-enhancing activities of the aqueous extract of Albizia Adianthifolia leaves in the 6-hydroxydopamine-lesion rodent model of Parkinson's disease. BMC Complementary and Alternative Medicine. 2014, 14:142

Background

Albizia adianthifolia (Schumach.) W. Wright (Fabaceae) is a traditional herb largely used in the African traditional medicine as analgesic, purgative, anti-

inflammatory, antioxidant, antimicrobial and memory-enhancer drug. This study was undertaken in order to evaluate the possible cognitive-enhancing and antioxidative effects of the aqueous extract of A. adianthifolia leaves in the 6-hydroxydopamine-lesion rodent model of Parkinson's disease.

Methods

The effect of the aqueous extract of A. adianthifolia leaves (150 and 300 mg/kg, orally, daily, for 21 days) on spatial memory performance was assessed using Y-maze and radial arm-maze tasks, as animal models of spatial memory. Pergolide - induced rotational behavior test was employed to validate unilateral damage to dopamine nigrostriatal neurons. Also, in vitro antioxidant activity was assessed through the estimation of total flavonoid and total phenolic contents along with determination of free radical scavenging activity. Statistical analyses were performed using two-way analysis of variance (ANOVA). Significant differences were determined by Tukey's post hoc test. F values for which $p < 0.05$ were regarded as statistically significant. Pearson's correlation coefficient and regression analysis were used in order to evaluate the association between behavioral parameters and net rotations in rotational behavior test.

Results

The 6-OHDA-treated rats exhibited the following: decrease of spontaneous alternations percentage within Y-maze task and increase of working memory errors and reference memory errors within radial arm maze task. Administration of the aqueous extract of A. adianthifolia leaves significantly improved these parameters, suggesting positive effects on spatial memory formation. Also, the aqueous extract of A. adianthifolia leaves showed potent in vitro antioxidant activity. Furthermore, in vivo evaluation, the aqueous extract of A. adianthifolia leaves attenuated the contralateral rotational asymmetry observed by pergolide challenge in 6-OHDA-treated rats.

Conclusion

Taken together, our results suggest that the aqueous extract of A. adianthifolia leaves possesses antioxidant potential and might provide an opportunity for management neurological abnormalities in Parkinson's disease conditions.

Mehrbod P, Ideris A, Omar AR, Hair-Bejo M.

Prophylactic effect of herbal-marine compound (HESA-A) on influenza A virus infectivity. BMC Complementary and Alternative Medicine. 2014, 14:131

Background

Influenza virus is still a severe respiratory disease affecting human and other species. As conventional drugs are not recommended for long time because of side effects and drug resistance occurrence, traditional medication has been focused as alternative remedy. HESA-A is a natural compound from herbal-marine origin. Previous studies have reported the therapeutic properties of HESA-A on psoriasis vulgaris and different types of cancers and we also showed its anti-inflammatory effects against influenza A infection.

Methods

This study was designed to investigate the potential properties of HESA-A as prophylaxis or treatment. To investigate the prophylaxis or treatment activities of HESA-A, Madin-Darby Canine Kidney (MDCK) cells were exposed to HESA-A and influenza A virus in different manners of exposure and different time intervals. The results were evaluated by MTT and HA assays.

Results

It was found that HESA-A is much more effective against influenza cytopathic effects when it is applied for prophylaxis and also in concurrent treatment ($p \leq 0.05$) but not in post-infection treatment ($p \geq 0.05$).

Conclusion

In conclusion, HESA-A is significantly effective against influenza replication in prophylaxis application affecting the virus penetration/adsorption to the cell without any toxic effect on the cell viability.

Homoeopathy

Marzotto M, Olioso D, Brizzi M, Tononi P, Cristofoletti M, Bellavite P.

Extreme sensitivity of gene expression in human SH-SY5Y neurocytes to ultra-low doses of Gelsemium sempervirens. BMC Complementary and Alternative Medicine 2014, 14:104 doi:10.1186/1472-6882-14-104

Background

Gelsemium sempervirens L. (*Gelsemium s.*) is a traditional medicinal plant, employed as an anxiolytic at ultra-low doses and animal models recently confirmed this activity. However the mechanisms by which it might operate on the nervous system are largely unknown. This work investigates the gene expression of a human neurocyte cell line treated with increasing dilutions of *Gelsemium s.* extract.

Methods

Starting from the crude extract, six 100 × (centesimal, c) dilutions of *Gelsemium s.* (2c, 3c, 4c, 5c, 9c and 30c) were prepared according to the French homeopathic pharmacopoeia. Human SH-SY5Y neuroblastoma cells were exposed for 24 h to test dilutions, and their transcriptome compared by microarray to that of cells treated with control vehicle solutions.

Results

Exposure to the *Gelsemium s.* 2c dilution (the highest dose employed, corresponding to a gelsemine concentration of $6.5 \times 10\text{-}9$ M) significantly changed the expression of 56 genes, of which 49 were down-regulated and 7 were overexpressed. Several of the down-regulated genes belonged to G-protein coupled receptor signaling pathways, calcium homeostasis, inflammatory response and neuropeptide receptors. Fisher exact test, applied to

the group of 49 genes down-regulated by *Gelsemium s.* 2c, showed that the direction of effects was significantly maintained across the treatment with high homeopathic dilutions, even though the size of the differences was distributed in a small range.

Conclusion

The study shows that *Gelsemium s.*, a medicinal plant used in traditional remedies and homeopathy, modulates a series of genes involved in neuronal function. A small, but statistically significant, response was detected even to very low doses/high dilutions (up to 30c), indicating that the human neurocyte genome is extremely sensitive to this regulation.

Integrative Medicine

Furzer BJ, Petterson AS, Wright KE, Wallman KE, Ackland TR, Joske DJL.

Positive patient experiences in an Australian integrative oncology centre. BMC Complementary and Alternative Medicine. 2014, 4:158 doi:10.1186/1472-6882-14-158.

Background

The purpose of this study was to explore the experiences of cancer patients' utilising complementary and integrative therapies (CIT) within integrative oncology centres across Western Australia.

Methods

Across four locations 135 patients accessed CIT services whilst undergoing outpatient medical treatment for cancer. Of the 135 patients, 66 (61 +/- 12 y; female n = 45; male n = 21) agreed to complete a personal accounts questionnaire consisting of open-ended questions designed to explore patients' perceptions of CIT. All results were transcribed into nVivo (v9) and using thematic analysis, key themes were identified.

Results

Of the 66 participants, 100% indicated they would "recommend complementary therapies to other patients" and 92% stated "CIT would play a significant role in their future lifestyle". A mean score of 8 +/- 1 indicated an improvement in participants' perception of wellbeing following a CIT session. Three central themes were identified: empowerment, support and relaxation. Fourteen sub-themes were identified, with all themes clustered into a framework of multifaceted views held by cancer patients in relation to wellbeing, role of significant others and control.

Conclusion

Exploration of patients' experiences reveals uniformly positive results. One of the key merits of the environment created within the centres is patients are able to work through their cancer journey with an increased sense of empowerment, without placing them in opposition to conventional medical treatment. In order to effectively target integrative support services it is crucial to explore the experiences of patients in their own words and use those forms of expression to drive service delivery.

Massage and Bodywork Therapies

Engel RM, Brown BT, Swain MS, Lystad RP.

The provision of chiropractic, physiotherapy and osteopathic services within the Australian private health-care system: a report of recent trends. Chirpractic & Manual Therapies. 2014, 22:3 doi:10.1186/2045-709X-22-3

Background

Chiropractors, physiotherapists, and osteopaths receive training in the diagnosis and management of musculoskeletal conditions. As a result there is considerable overlap in the types of conditions that are encountered clinically by these practitioners. In Australia, the majority of benefits paid for these services come from the private sector. The purpose of this article is to quantify and describe the development in service utilization and the cost of benefits paid to users of these healthcare services by private health insurers. An exploration of the factors that may have influenced the observed trends is also presented.

Methods

A review of data from the Australian Bureau of Statistics, Australian Health Practitioner Regulation Agency, and the Australian Government Private Health Insurance Administration Council was conducted. An analysis of chiropractic, physiotherapy and osteopathic service utilisation and cost of service utilisation trend was performed along with the level of benefits and services over time.

Results

In 2012, the number of physiotherapists working in the private sector was 2.9 times larger than that of chiropractic, and 7.8 times that of the osteopathic profession. The total number of services provided by chiropractors, physiotherapists, and osteopaths increased steadily over the past 15 years. For the majority of this period, chiropractors provided more services than the other two professions. The average number of services provided by chiropractors was approximately two and a half times that of physiotherapists and four and a half times that of osteopaths.

Conclusion

This study highlights a clear disparity in the average number of services provided by chiropractors, physiotherapists, and osteopaths in the private sector in Australia over the last 15 years. Further research is required to explain these observed differences and to determine whether a similar trend exists in patients who do not have private health insurance cover.

Hwang O, Ha K, Choi S.

The effects of PNF techniques on lymphoma in the upper limbs. Journal of Physical Therapy Science. 2013 Jul;25(7):839-41.

Aim
The purpose of this study were to identify whether painless dynamic PNF techniques can reduce lymphedema, and to provide basic reference data for use in the treatment of lymphedema patients.

Subjects
This experiment was conducted from March 2012 to July 2012 at Busan University Hospital D. The subjects were upper extremity lymphedema patients who were receiving rehabilitation treatment. Those with dual lymphedema site pain or who did not want to participate in the experiment were excluded.

Methods
A total of 40 women participated in this study, and they received PNF techniques before the application of lymph compression bandages. Group 1 of 20 subjects were administered PNF techniques three times a week for 30 minutes each time. Group 2 of 20 subjects only edema reducing massage for 30 minutes.

Results
The interaction between treatment method and treatment time was significant, which indicates that the change in edema at different measurement times was different according to treatment methods. In this study, Group 1 had a steeper rate of decline in edema than Group 2.

Conclusion
In conclusion, both massage and PNF techniques helped to lower edema rates. Four weeks after the beginning of treatment, a larger degree of decline in edema was exhibited in the PNF group than in the massage group.

Nutrition

Mikirova NA, Casciari JJ, Hunninghake RE.

The orthomolecular correction of metabolic imbalances found in Attention Deficit Hyperactivity Disorder: A retrospective analysis in an outpatient clinic. Journal of Orthomolecular Medicine. 2013;28(3):101-10.

Background
Attention deficit hyperactivity disorder (ADHD) is characterized by atypically severe inattentiveness, hyperactivity, and impulsiveness. While its cause is unknown, biological and environmental influences are likely.

Objectives
To identify the metabolic imbalances in fatty acid, amino acid, mineral, and pyrrole levels in ADHD patients, and to examine the effectiveness of the nutritional approach in the correction of these imbalances in an outpatient clinic.

Design
Medical records of 116 patients with ADHD treated with nutritional approaches were retrospectively reviewed. Demographics were limited to ensure confidentiality. Blood levels of fatty acids, amino acids, vitamins and minerals, hair analysis of heavy metals and urine pyrrole levels were done on all patients. Comparisons with control (i.e., normal values) were made. Improvements following nutritional interventions were measured and compared to controls. Setting: The Riordan Clinic (Wichita, KS), an outpatient complementary and alternative medical clinic. Intervention: Various nutritional interventions (i.e., minerals, vitamins, omega-3 and omega-6 essential fatty acids, flavonoids, probiotics, dietary modifications and chelation of toxic metals by natural substances) were prescribed based on laboratory results. Main Outcome Measures: Serum fatty acid composition, measurements of minerals (normal and toxic) in hair and, in some cases, in red blood cells (RBC), and assessments of vitamins in serum and pyrroles in urine.

Results
There was a predominance of below-normal docosahexaenoic acid, eicosapentaenoic acid, and gamma-linolenic acid levels; a high incidence of unfavorable arachidonic acid-to eicosapentaenoic acid and omega-6-to-omega-3 ratios; deficiencies in zinc, magnesium, and selenium levels; and the presence of toxic metals in above-normal amounts.

Conclusion
Our data suggests that at least two of the factors that were the most abnormal omega-6-to-omega-3 ratios and pyrrole levels, and can in fact improve in subjects undergoing a regimen with nutrient supplementation. While nutritional manipulation did result in improved metabolic profiles in our sample, these results warrant a study of a larger sample, with an attempt to document whether these changes have an effect on improving behavior and cognition in the form of a prospective, controlled clinical study.

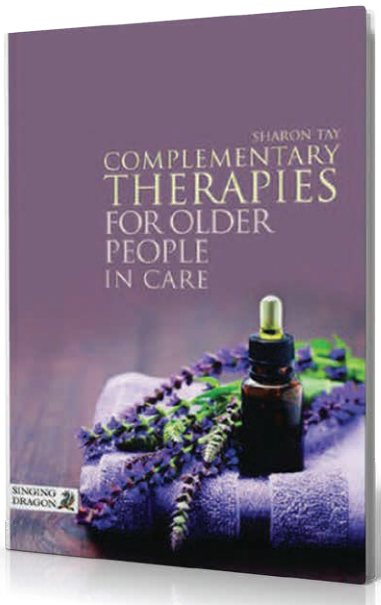
Complementary Therapies for Older People in Care

Reviewed by: **Stephen Clarke**

Sharon Tay. Singing Dragon, London. 2014. ISBN 978 1 84819 178 5. Available at **www.singingdragon.com** (AUD24.95)

Readers need to be clear that this title is somewhat ambitious, in that the book itself explores almost exclusively the use of tactile therapies in treating elderly people in care, and not the wider scope of natural therapies that the title might suggest. That said, the author's wide experience in a range of therapeutic and cosmetic treatments for elderly and frail clients and her sympathetic understanding of the issues of ageing in care have enabled her to produce a book that should prove most useful for massage and beauty therapists who care for such clients. The contemporary and future growth of the ageing population is well documented, so resources like this book will become increasingly important for health care workers.

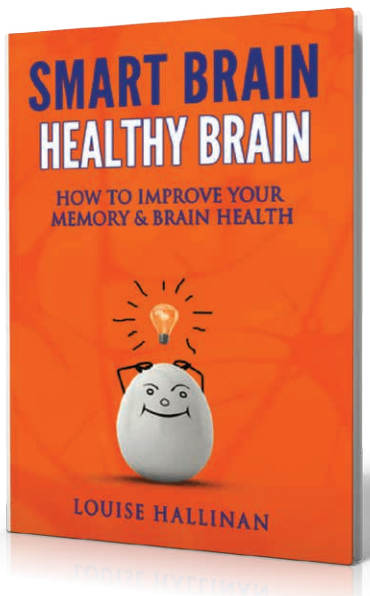
Natural therapies are valuable to ageing clients in terms of the issues specific to ageing: the author cites helping clients to feel good, to encourage relaxation and to instil a sense of well-being as examples of the benefits of natural therapies in this field. The primary goal of natural therapists may actually not be to effect cures for clients nearing the end of their lives but to enhance quality of life. This book ranges widely over the contributions that massage, reflexology, aromatherapy, acupressure and beauty therapy can make to the physical, mental and emotional welfare of ageing clients. There is a chapter on specific treatments for clients with common conditions of ageing, such as dementia, cardiovascular and cerebrovascular disease, multiple sclerosis, arthritis and Parkinson's disease, that should prove to be a particularly useful resource for therapists in this field.



Smart Brain, Healthy Brain

Reviewed by: **Stephen Clarke**

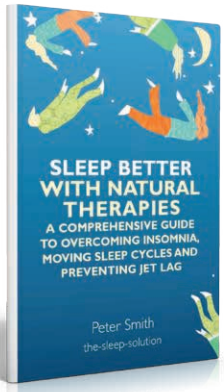
Louise Hallinan, The Hallinan Memory Clinic, Sydney. 2013. ISBN 978-0-9922688-0-0 (paperback); 9798-0-22688-1-7 (ebook.) Available at **www.louisehallinan.com.au.** AUD24.95



Louise Hallinan is a practising nutritionist and homoeopath whose interest in brain health stemmed at least in part from the experience of her mother's having developed Alzheimer's Disease after surgery. Her research has been focussed on brain function, and particularly memory loss, since 2000 and this book, the fruit of that study, amply justifies that research. It is a rich store of evidence-based information on memory loss, its causes and its prevention, presented in clear and literate language and with a balance between simplicity and depth that should make it equally valuable to the general public and health professionals.

Louise has arrived at the conclusion that Alzheimer's Disease is not hereditary but a response to a wide range of medical conditions and trauma and, as in her mother's case, can be a reaction to surgical anaesthesia with long-term ramifications beyond the accepted parameters of Post-Operative Cognitive Dysfunction (she cites a study in which participants were 35% more likely to have developed dementia if they had experienced anaesthesia during the previous decade). The book begins with a three-page table of signs of cognitive dysfunction, usefully contrasting them with those of normal temporary forgetfulness or confusion. Her approach to pathological (or potentially pathological) memory problems has five steps: identifying their medical and lifestyle causes, screening for them, avoiding foods that may contribute to them (as Louise puts it, 'You are what you don't eat'), prevention and therapeutic lifestyle.

The book is replete with case studies and references to academic studies, although none of these appear in the chapter on homoeopathy's possible contribution to treatment. As is so often the case readers will have to draw on their own knowledge of clinical and anecdotal support for homoeopathy, which in 2012 was endorsed by the Swiss government as a valid form of healthcare. In very lucid terms it presents a comprehensively holistic approach to this crucial contemporary health problem.



Sleep Better with Natural Therapies: a holistic guide to overcoming insomnia and restoring a healthy sleep cycle.

Reviewed by: **Stephen Clarke**

Peter Smith. Singing Dragon, London. 2013. ISBN 978 1 84819 182 2 (paperback); 978 0 85701 140 4 (e-book). Available at **www.singingdragon.com/search/index.php?s=sleep+better+with+natural** (AUD 22.95)

Readers need to be clear that this title is somewhat ambitious, in that the book itself explores almost exclusively the use of tactile therapies in treating elderly people in care, and not the wider scope of natural therapies that the title might suggest. That said, the author's wide experience in a range of therapeutic and cosmetic treatments for elderly and frail clients and her sympathetic understanding of the issues of ageing in care have enabled her to produce a book that should prove most useful for massage and beauty therapists who care for such clients. The contemporary and future growth of the ageing population is well documented, so resources like this book will become increasingly important for health care workers.

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Health Funds

ATMS is a 'professional organisation' within the meaning of section 10 of the Private Health Insurance Accreditation Rules 2008. This potentially allows ATMS accredited members to be recognised as approved providers by the various private health funds. Approved health fund provider status is, however, subject to each individual health fund's requirements.

Consequently membership of ATMS does not automatically guarantee provider status with all health funds. Please also note that several health funds do not recognise courses done substantially by distance education, or qualifications obtained overseas.

Additional requirements for recognition as a provider by health funds include:

- *Clinic Address (Full Street Address must be provided – Please note that some health funds may list your clinic address on their public websites)*
- *Current Senior First Aid*
- *Current Professional Indemnity Insurance (some health funds require specific minimum cover amounts)*
- *Compliance with the ATMS Continuing Education Policy*
- *Compliance with the Terms and Conditions of Provider Status with the individual health funds.*

ATMS must have current evidence of your first aid and insurance on file at all times.

When you join or rejoin ATMS, or when you upgrade your qualifications, details of eligible members are automatically sent to the applicable health funds (provided you have given ATMS permission to send your details to the health funds) on their next available listing. The ATMS office will also forward your change of details, including clinic address details to your approved health funds on their next available list. Please note that the health funds can take up to one month to process new providers and change of details as we are only one of many health professions that they deal with.

Lapsed membership, insurance or first aid will result in a member being removed from the health funds list. As health funds change their provider eligibility requirements from time to time, upgrading qualifications may be necessary to be re-instated with some health funds.

Terms and Conditions of Provider Status

Many of the Terms and Conditions of Provider Status for the individual health funds are located on the ATMS website. For the Terms and Conditions for the other health funds, it will be necessary to contact the health fund directly.

Please note that whilst there is no law or regulation requiring patient clinical notes to be taken in English, many of the major health funds do require patient clinical notes to be taken in English. **Failure to do this will be a breach of the Health Funds Terms and Conditions and may result in the practitioner being removed as a provider for that health fund.**

For health funds to rebate on the services of Accredited members, it is important that a proper invoice be issued to patients. The information which must be included on an invoice is also listed on the ATMS website. It is ATMS policy that only Accredited members issue their own invoice. An Accredited member must never allow another practitioner, student or staff member to use their provider details, as this constitutes health fund fraud. Misrepresenting the service(s) provided on the invoice also constitutes health fund fraud. Health fund fraud is a criminal offence which may involve a police investigation and expulsion from the ATMS Register of Members.

It is of note that the health funds require practitioners to be in private practice. Some health funds will not recognise claims where accommodation, facilities or services are provided or subsidised by another party such as a public hospital or publicly funded facility. Rebates are only claimable for the consultation (not the medicines or remedies); however this does not extend to mobile work including markets, corporate or hotels. Home visits are eligible for rebates.

Please be aware that whilst a health fund may indicate that they provide a rebate for specific modalities, this rebate may only be claimable if the client has the appropriate level of health cover with that fund and has not exceeded any limits on how much they are eligible to claim back over a certain period of time.

Australian Health Management (AHM)

Names of eligible ATMS members will be automatically sent to AHM each month. AHM's eligibility requirements are listed on the ATMS website **www.atms.com.au.** ATMS members can check their eligibility by checking the ATMS website or by contacting the ATMS Office on 1800 456 855. Your ATMS Number will be your provider number, unless you wish to have online claiming. You will then need to contact AHM directly for the new provider number.

Australian Regional Health Group (ARHG)

This group consists of the following health funds:

- ACA Health Benefits Fund Ltd
- Cessnock District Health Benefits Fund

- CUA Health Limited
- Defence Health
- GMHBA *(Including Frank Health Fund)*
- GMF Health
- Health.com.au
- Health Care Insurance Limited
- HIF WA
- Latrobe Health Services (Federation Health)
- Mildura District Hospital Fund
- Navy Health Fund
- Onemedifund
- Peoplecare Health Insurance
- Phoenix Health Fund
- Police Health Fund
- Queensland Country Health Fund Ltd
- Railway and Transport Fund Ltd
- Reserve Bank Health Society Limited
- St Luke's Health
- Teachers Federation Health
- Teachers Union Health
- Transport Health
- Westfund

Details of eligible members, including member updates are automatically sent to ARHG by ATMS monthly. The details sent to ARHG are your name, address, telephone and accredited discipline(s). These details will appear on the ARHG websites. If you do not wish your details to be sent to ARHG, please advise the ATMS office on 1800 456 855.

The ARHG provider number is based on your ATMS number with additional lettering. To work out your ARHG provider number please follow these steps:

1 Add the letters AT to the front of your ATMS member number

2 If your ATMS number has five digits go to step 3. If it has two, three or four digits, you need to add enough zeros to the front to make it a five digit number (e.g. 123 becomes 00123).

3 Add the letter that corresponds to your accredited modality at the end of the provider number;

A Acupuncture,
C Chinese Herbal Medicine,
H Homoeopathy,
N Naturopathy,
O Aromatherapy,
W Western Herbal Medicine.

If ATMS member 123 is accredited in Western herbal medicine, the ARHG provider number will be AT00123W.

4 If you are accredited in several modalities, you will need a different provider number for each modality (e.g. if ATMS member 123 is accredited for Western Herbal Medicine and Aromatherapy, the ARHG provider numbers are AT00123W and AT00123O.

ARHG and Remedial Massage

Remedial massage therapists who graduated after March 2002 must hold a Certificate IV or higher from a registered training organisation.

Members who are accredited for Remedial Massage, will need to use the following letters.

M Massage Therapy
R Remedial Therapy

The letter at the end of your provider number will depend on your qualification, not the modality in which you hold accreditation*. All members who hold a Diploma of Remedial HLT50302 or HLT50307 will be able to use both the 'M' and 'R' letters. It is recommended to use the 'R' as often as possible, but as not all health funds under ARHG cover 'Remedial Therapy', it will be necessary to use the 'M' at the end of the provider number for those funds only. All other eligible Remedial Massage Therapists who do not hold the Diploma of Remedial Massage HLT50302 or HLT50307 are required to use the 'M' at the end of their provider number.

**Members accredited for Remedial Therapies and approved for ARHG for this modality under their previous criteria will continue to be recognised under Remedial Therapy and will be fine to use the 'R' in their provider number. Should members in this situation lapse membership, first aid or insurance etc they will then be required to meet the current ARHG criteria.*

Australian Unity

Names and details of eligible ATMS members will be automatically sent to Australian Unity each month. ATMS members will need to contact Australian Unity on 1800 035 360 to register as a provider, after filling out the Australian Unity Application Form located on the ATMS website to activate their provider status. This only needs to happen the first time. The provider eligibility requirements for Australian Unity are located on the ATMS website **www.atms.com.au.** Your ATMS number can be used as your Provider Number, or you can contact Australian Unity for your Australian Unity generated Provider Number.

BUPA

(including MBF, HBA, Health Cover Direct, AXA, NRMA, SGIO, SGIC, St Georges Health, ANZ Health and Mutual Community)

Names and details of eligible ATMS members will be automatically sent to BUPA on a weekly basis. The provider eligibility requirements for BUPA are located on the ATMS website **www.atms.com.au.** The Provider eligibility requirements include an IELTS test result of an overall Band 6 or higher for TCM qualifications completed in a language other than English. BUPA will generate a Provider Number after receiving the list of eligible practitioners. BUPA advises ATMS of your Provider Number and ATMS will then advise those members directly.

CBHS Health Fund Limited

Names and details of eligible ATMS members will be automatically sent to CBHS each month. The details sent to CBHS are your name, address,

telephone and accredited discipline(s). These details will appear on the CBHS website. If you do not want your details to be sent to CBHS, please advise the ATMS office on 1800 456 855. The provider eligibility requirements for CBHS are located on the ATMS website **www.atms.com.au.** Your ATMS number will be your Provider Number.

Doctors Health Fund

Names and details of eligible ATMS members will be automatically sent to Doctors Health Fund each month. Please note that Doctors Health Fund only covers Remedial Massage. The provider eligibility requirements for Doctors Health Fund are located on the ATMS website **www.atms.com.au.** Your ATMS number will be your Provider Number.

Grand United Corporate

To register with Grand United Corporate, please apply directly to Grand United on 1800 249 966.

HBF

Names and details of eligible ATMS members will be automatically sent to HBF each month. The provider eligibility requirements for HBF are located on the ATMS website **www.atms.com.au.** HBF generates provider numbers after they receive the first claim from first HBF client.

HCF

Names and details of eligible ATMS members will be automatically sent to HCF on a weekly basis. The provider eligibility requirements for HCF are located on the ATMS website **www.atms.com.au.** Your ATMS number will be your Provider Number.

Health Partners

Names and details of eligible ATMS members will be automatically sent to Health Partners each month. The provider eligibility requirements for Health Partners are located on the ATMS website **www.atms.com.au.** Health Partners uses the same Provider number system as ARHG for certain modalities and the ATMS number or other modalities.

The provider number is based on your ATMS number with additional lettering. To work out your Health Partners provider number please follow these steps:

1 Add the letters AT to the front of your ATMS member number

2 If your ATMS number has five digits go to step 3. If it has two, three or four digits, you need to add enough zeros to the front to make it a five digit number (e.g. 123 becomes 00123).

3 Add the letter that corresponds to your accredited modality at the end of the provider number;

A Acupuncture,
C Chinese Herbal Medicine,
H Homoeopathy,
R Remedial Massage,
N Naturopathy,
W Western Herbal Medicine.

If ATMS member 123 is accredited in Western Herbal Medicine, the provider number will be AT00123W.

4 If you are accredited in several modalities, you will need a different provider number for each modality (e.g. if ATMS member 123 is accredited for Western Herbal Medicine and Aromatherapy, the provider numbers are AT00123W and AT00123O.

For all other modalities that Health Partners cover that are not listed above including Alexander Technique, Bowen Therapy, Kinesiology and Reflexology, eligible providers will need to use their ATMS number.

Medibank Private

Names and details of eligible ATMS members will be automatically sent to Medibank Private on a weekly basis. The provider eligibility requirements for Medibank Private are located on the ATMS website **www.atms.com.au.** Medibank Private requires Clinical Records to be taken in English. Medibank Private generates Provider Numbers after receiving the list of eligible practitioners from ATMS. Medibank Private sends these provider numbers directly to your clinic address/es.

NIB

Names and details of eligible ATMS members will be automatically sent to NIB on a weekly basis. The provider eligibility requirements for NIB are located on the ATMS website **www.atms.com.au.** NIB does accept overseas Acupuncture and Chinese Herbal Medicine qualifications which have been assessed as equivalent to the required Australian qualification by Vetassess. Your ATMS Number will be your provider number, unless your client wishes to claim online. Your client will need to contact NIB directly or search by your surname and postcode on the NIB website **www.nib.com.au** for your provider number for online claiming purposes.

HICAPS

ATMS members who wish to activate these facilities need to register directly with HICAPS. Please note that you must have a Medibank Private Provider number to be able to use these facilities. *HICAPS do not cover all health funds and modalities. Please go to* ***www.hicaps.com.au*** *or call 1800 805 780 for further information.*

HEALTH FUND UPDATE

Health Fund	Acupuncture	Alexander Technique	Aromatherapy	Bowen Therapy	Chinese Herbal Medicine	Counselling	Deep Tissue Massage	Herbal Medicine	Homoeopathy	Hypnotherapy	Iridology	Kinesiology	Lymphatic Drainage	Naturopathy	Nutrition	Reflexology	Remedial Massage (Certificate IV)	Remedial Massage (Certificate IV)	Remedial Therapies (No longer ATMS Accredited)	Rolfing	Shiatsu	Sports Massage	Traditional Chinese Massage
Australian Health Management	✓	✓	✓	✓	✓			✓	✓			✓		✓	✓	✓		✓			✓		
Australian Regional Health Group																							
ACA Health Benefits Fund	✓				✓			✓	✓					✓			✓	✓	◆				
Cessnock District Health	✓		✓		✓			✓	✓					✓			✓	✓	◆				
CUA Health *(Credicare)*	✓		✓						✓			✓		✓		✓		✓	◆				
Defence Health Partners	✓		✓		✓			✓	✓					✓			✓	✓	◆				
GMF Health *(Goldfields Medical Fund)*	✓				✓				✓					✓		✓	✓						
GMHBA *(Geelong Medical)*	✓								✓					✓			✓	✓	◆				
Frank Health Fund	✓								✓					✓			✓						
Health Care Insurance Limited	✓		✓		✓			✓	✓					✓			✓	✓	◆				
Health.com.au	✓				✓			✓	✓					✓			✓	✓	◆				
HIF *(Health Insurance Fund of WA)*	✓				✓				✓					✓			✓	✓	◆				
Latrobe Health Services	✓								✓					✓			✓	✓	◆				
MDHF *(Mildura District Hospital Fund)*	✓													✓			✓						
Navy Health Fund	✓		✓		✓			✓	✓					✓			✓	✓	◆				
Onemedifund	✓				✓			✓	✓					✓			✓	✓	◆				
Peoplecare Health Insurance	✓				✓			✓	✓					✓			✓	✓	◆				
Phoenix Health Fund	✓		✓		✓			✓	✓					✓			✓	✓	◆				
Police Health Fund	✓		✓		✓			✓	✓					✓			✓	✓	◆				
Queensland Country Health	✓								✓					✓			✓						
Railway and Transport	✓				✓			✓	✓					✓			✓	✓	◆				
Reserve Bank Health Society	✓				✓			✓	✓					✓			✓	✓	◆				
St Lukes	✓				✓			✓	✓					✓			✓	✓	◆				
Teachers Federation	✓	✓	✓		✓			✓	✓			✓		✓		✓	✓	✓	◆		✓		
Teachers Union Health	✓		✓						✓					✓	✓		✓	✓	◆				
Transport Health	✓		✓		✓			✓	✓					✓			✓	✓	◆				
Westfund	✓		✓		✓									✓			✓	✓	◆				
Australian Unity	✓	✓	✓	✓	✓	✓		✓	✓	✓	❋	✓		✓	✓	✓		✓			✓		✓
BUPA	✓	✓	✓	✓	✓			✓	✓			✓		✓		✓		✓			✓		✓
CBHS Health Fund	✓		✓		✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Doctors Health Fund																		✓					
GU Health *(Grand United)**	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓		✓			✓		✓
Health Partners	✓	✓		✓	✓			✓	✓			✓		✓		✓	✓	✓					
HBF	✓	✓	✓		✓			✓	✓	✓		✓		✓	✓	✓		✓			✓		
HCF	✓		✓		✓			✓	✓			✓		✓	✓	✓		✓			✓	✓	
Medibank Private	✓		✓		✓	✓		✓	✓	✓		✓		✓	✓	✓		✓			✓		
NIB	✓				✓			✓	✓					✓	✓			✓			✓		✓

✓ Therapy covered by Fund	Please note that this table is only a guide to show what funds cover ATMS accredited modalities. If the modality that you are accredited for is not listed, this means that no health fund covers the modality. The only exceptions are Chiropractic and Osteopathy. ATMS accreditation in a modality does not guarantee provider status as all funds have their individual set of strict eligibility requirements. Please see our website www.atms.com.au or contact our office for current requirements. Rebates do not usually cover medicines, only consultations. For further rebate terms and conditions, patients should contact their health fund. Policies may change without prior notice.
* Need to Apply directly to Fund	
❋ Iridology can only be claimed when provided by an Australian Unity recognised Naturopath.	

◆ ARHG are only recognising Remedial Therapists who are accredited for this modality and were approved for ARHG Provider status under their old criteria.

CORE Myofascial Therapy

CORE Myofascial Therapy was developed by George P. Kousaleos, LMT. It grew out of the Structural Integration work he had been practicing since 1979. After opening CORE Institute in Tallahassee, Florida in 1990, George developed a curriculum that introduced the history, theory, fascial anatomy and clinical procedures of both full body and region-specific strategies that would improve structural alignment, physical balance, and flexibility, while decreasing chronic pain and movement restrictions.

After teaching this curriculum for several years to students in CORE's entry-level program, George then advanced the curriculum as a continuing education certification seminar for massage therapists, physiotherapists and athletic trainers. CORE Myofascial Therapy became the primary manual procedure for the British Olympic Association during their warm-weather preparation camps that were held in Tallahassee, Florida during the summers of 1995 and 1996.

As one of the Co-Directors of the 2004 Athens Olympics International Sports Massage Team, George introduced CORE Myofascial Therapy to the 180 therapists who worked with thousands of athletes and coaches during the Athens Olympics and Paralympics. Many other professional athletes and artistic performers have utilized this work for improved recovery from strenuous training and have achieved higher levels of performance abilities.

Today the work is practiced by thousands of therapists in the U.S., Canada, England, Scotland, Ireland and Germany, many who work in medical, or sports and fitness practices. CORE Myofascial Therapy is one of the most versatile forms of therapeutic bodywork, and George still finds it exciting each time a client realizes a profound increase in neurosomatic awareness and physical improvement.

George will come to Sydney in September and for the first time offers the CORE Myofascial Therapy certification in Australia. The 6 day program focuses on training in structural integration techniques that improve the structural alignment of the human body while advancing functional abilities, respiration, flexibility, and reducing chronic pain. CORE Myofascial Therapists are taught client-education strategies that support the goals of the work while increasing the client/patient's neurosomatic awareness.

The first three days (CORE Myo 1, 26,27,28 Sept 2014) focuses on full-body techniques and treatment protocols. The clinical protocols include full-body application of myofascial spreading, arthrokinetic joint techniques, detailed cervical, cranial, and facial techniques, and strategies for stimulating the parasympathetic nervous system while improving neurosomatic awareness.

The next 3 days (CORE Myo 2, 29,30 Sept & 1 Oct) focuses on specific treatments for key regions of the body. Clinical protocols include the "Back Specific", a deeper treatment plan for the paraspinal, scapula, sacrum, and iliofemoral regions. The "CORE Release" is presented to work with the floor of the pelvis, sacrotuberous ligament, and related ligaments of the lumbar, thoracic, and cervical spine. Also included is the "Foot Specific", a treatment protocol for the fascia and musculature of the foot and ankle. The final day of CORE Myo 2 focuses on the integration of the CORE techniques in 30, 60, & 90-minute session strategies.

George will also teach CORE Sports and Performance Bodywork in Sydney, on 3,4,5 October 2014. For more information, visit **www.terrarosa.com.au.**

Mercury and Chronic Fatigue Syndrome

Jon Gamble | BA ND ADHom
ATMS 1190

For some 30 years now we have been collecting our clinical successes in the treatment of Chronic Fatigue Syndrome.

Mercury

Mercury is well known for its toxicity in humans. It disturbs the endocrine, gastrointestinal and nervous systems. Most mercury patients complain of brain fog, with difficulty in focussing the concentration or following through without distraction. Post exertion pain or malaise are common, together with unrefreshing sleep.

Spectrophotometry

We now use technology called Spectrophotometry to detect toxic elements and bio-availability of all the nutritive minerals. This is done using a clever device called Oligoscan[1], developed in Europe, which then gives us an instant print out of the patient's elements. The case below was diagnosed and treated after using this technology.

Case Study 1

This 54 year old male has CFS for 30 years. History and causality are clouded because the patient cannot remember the details clearly, which is characteristic for patients with mercury toxicity. We know that he grew up on a farm in Easten Europe, which is when his first symptoms began: seizures and headaches.

He then developed brain fog, with a dull ache and a "pulling" sensation in his head, and difficulty with concentration. His legs and feet had pins and needles and burning sensations. Also pain which on some days was so severe he could not even stand for 20 minutes to wash the dishes.

He had undergone years of chelation treatment from integrative doctors, as well as a host of other modalities of CAM.

The combination of excess mercury plus silver, indicates that the mercury arises from mercury amalgam fillings.

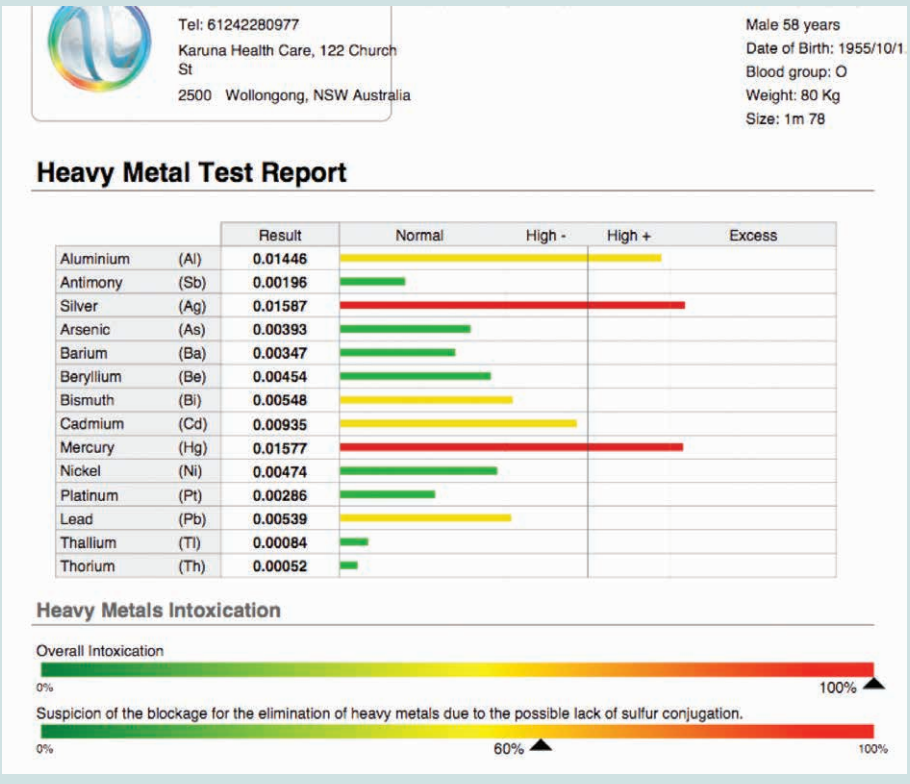
Once we know what it is we are treating, the treatment plan is straight forward. But we have to be careful with this patient because he is, as with any mercury patients, highly sensitive: the wrong supplement can push him into a descending cycle.

As we'll as zinc and selenium, we give him Homeopathic Mercury chelate, which essentially contains a potency chord of homeopathic *Mercurius Sol*, which he places in his water bottle each day and sips it throughout the day. In this way, each time he has some water, we are picking away at his mercury accumulation.

After a month on this protocol the patient is able to do manual work at a pace. After two months he did four days of home revocations including painting a house roof. He continues to make steady progress at the time of writing.

References

1 *www.oligoscan.net.au*



Tel: 61242280977
Karuna Health Care, 122 Church St
2500 Wollongong, NSW Australia

Male 58 years
Date of Birth: 1955/10/1
Blood group: O
Weight: 80 Kg
Size: 1m 78

Heavy Metal Test Report

		Result	Normal	High -	High +	Excess
Aluminium	(Al)	0.01446				
Antimony	(Sb)	0.00196				
Silver	(Ag)	0.01587				
Arsenic	(As)	0.00393				
Barium	(Ba)	0.00347				
Beryllium	(Be)	0.00454				
Bismuth	(Bi)	0.00548				
Cadmium	(Cd)	0.00935				
Mercury	(Hg)	0.01577				
Nickel	(Ni)	0.00474				
Platinum	(Pt)	0.00286				
Lead	(Pb)	0.00539				
Thallium	(Tl)	0.00084				
Thorium	(Th)	0.00052				

Heavy Metals Intoxication

Overall Intoxication
0% 100%

Suspicion of the blockage for the elimination of heavy metals due to the possible lack of sulfur conjugation.
0% 60% 100%

Stress Ease Adrenal Support

Kay Bellingham (Milner) | B.HSc.
Nat – Herbs of Gold

Chronic Stress: a major driver of dis-*ease*

Stress can be a double edged sword. Short term, or acute stress, is transient and allows the body to react and respond quickly to demanding or dangerous situations. Once the danger has passed, the acute stress response resolves and the body returns to homeostasis or *'ease'*. Long term, or chronic stress, is detrimental to good health and considered a major driver of dis-*ease*.

3 phases of stress adaptation: Selye's General Adaptation Syndrome (GAS)

Different stages of the stress response, as proposed by Hans Selye, are typically classified into 3 phases:

- Phase 1 (Alarm) – the 'fight or flight' response; increase in adrenaline and cortisol.
- Phase 2 (Resistance) – persistent, prolonged stress with the body attempting to 'adapt or normalise'; facilitates elevated cortisol production.
- Phase 3 (Exhaustion) – elevated cortisol production instigates cortisol resistance, decreasing cortisol production; body's resources become depleted, unable to mount any stress response (adrenal fatigue).

Chronically elevated cortisol & dis-*ease*

Persistent and prolonged stress appears to be the new 'norm', reaching epidemic proportions as a result of our fast paced 'stressful' lifestyles. During Phase 1 of the stress response, cortisol and adrenaline drive 'essential' physiological changes in the body, so you can focus and react quickly. Cortisol is also responsible for curbing 'non-essential' stress related physiological processes in the body through suppression of immune, digestive and reproductive functions.

The majority of chronically stressed people are caught up in Phase 2, where chronically elevated cortisol levels steer multiple physiological and biochemical changes in the body. There are any number of chronic diseases that are related to chronic stress, particularly those associated with dysfunctional neurotransmitter, hormonal and immune pathways.

Physiological effects of prolonged Phase 2 and chronically elevated cortisol levels include:

- Decreased serotonin production leading to low mood and anxiety.
- Dopamine dysregulation generates cravings, addictions, poor focus and concentration.
- Increased adrenaline, noradrenaline and adrenocorticotrophin releasing hormone (ACTH) drive insomnia, sleep disorders and increased alertness.
- Decreased leptin increases central fat deposits, appetite, cravings and weight gain.
- Decreased TSH (thyroid stimulating hormone) and T4 (thyroxine) available for T3 (triiodothyronine) conversion, resulting in sub-clinical thyroid disease.
- Modified hippocampal functioning resulting in poor memory and anxiety.

Chronic stress is primarily best addressed through targeting cortisol through adrenal gland support and cortisol release, utilising specific herbs such as Rhodiola, Withania, Rehmannia and Licorice. Secondary physiological symptoms can be ameliorated with other herbal and nutritional strategies that suit each individual.

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Differentiating Between Beta Glucans: Exploring an Alternate Immune Approach

By Rachel McDonald | BHSc (Comp Med) Adv Dip Nut Med

Research demonstrates that slight molecular differences even amongst various yeast-derived beta glucans can affect their biological activity. Beta 1,3/1,6 glucans (ß-1,3/1,6 glucan) are known biological response modifiers (BRMs) and have been demonstrated to support immune responses against viral, bacterial, parasitic and fungal infections.[1-3]

Wellmune WGP® is a whole glucan particle (WGP) with a unique ß-1,3/1,6 glucan molecular structure, and specific biological activities which have been demonstrated in numerous clinical studies. Wellmune WGP® is able to bind directly to cell surface dectin-1 receptors. Dectin-1 receptors are pattern recognition receptors found on myeloid phagocytes such as macrophages, dendritic cells (DC) and neutrophils. Dectin-1 dependent responses include; the promotion of phagocytosis, the production of reactive oxygen species by macrophages and dendritic cells, as well as the induction of cytokine responses.[3]

Wellmune WGP® has been clinically studied for its use in upper respiratory tract infections (URTIs).[4-5] Interestingly, several studies have demonstrated a combined benefit of reduced URTI symptoms, along with improved psychological wellbeing.[4,6,7]

A randomised, double-blind placebo-controlled study was conducted to evaluate the effect of ß-1,3/1,6 glucans on symptoms associated with upper respiratory tract infections and psychological wellbeing.[6] During a 4-week treatment period, a total of 150 moderate to highly stressed subjects, were administered placebo, 250mg, or 500mg of ß-1,3/1,6 glucan per day (as Wellmune WGP®). Subjects in both treatment groups reported fewer upper respiratory tract infection symptoms and better overall health, along with increased vigour, and decreased tension, fatigue, and confusion based on the Profile of Mood States (POMS) assessment.[6]

Another study was undertaken to examine the effect of using beta glucan on the physical and psychological wellbeing of healthy women under moderate levels of perceived psychological stress; defined by an elevated POMS score.[7] During the course of the 12-week treatment period, subjects supplementing their diets with a beta glucan supplement (250 mg/d), reported fewer upper respiratory symptoms and higher overall mood state compared to moderately stressed subjects taking a placebo.[7] The study authors concluded that daily dietary supplementation with beta-1,3/1,6 glucan (Wellmune) reduced the incidence of upper respiratory symptoms and improved mood state in stressed subjects. The authors proposed that it may be a useful approach for supporting immune function during periods of increased psychological stress.[7]

It has long been reported that marathon runners and other athletes whose athletic activities cause significant physical stress, are more susceptible to upper respiratory tract infections.[4] A placebo-controlled, double-blind study was undertaken to evaluate the effect of ß-1,3/1,6 glucan (as Wellmune WGP®) on URTI symptoms and mood state in a sample of marathon runners.[4]

Subjects received either placebo, 250 mg or 500 mg of ß-1,3/1,6 glucan daily during a 4-week post-marathon trial period. Subjects in the treatment groups reported significantly fewer URTI symptoms, better overall health and decreased confusion, fatigue, tension, anger, and increased vigour based on the POMS survey compared to placebo. The study findings indicated that beta glucan may prevent URTI symptoms, and improve overall health and mood following a competitive marathon.[4]

To date, conventional strategies to decrease frequency of infection, intensity of illness or duration of affliction have shown limited success, leading to a potential role for alternative approaches. Beta-1,3/1,6 glucan may be one such alternative approach.[8]

(Reference list available by request)

Achieving outstanding results for your patients using Sun Herbal's prepared Chinese Medicine

Case Study ID: GIT001

by Peter Chen | BTCM, MAc, registered Acupuncturist/ Chinese Herbalist, NSW

Male 42, winemaker, presents with reflux.

Main Signs and Symptoms:
Digestive system feels not balanced, reflux, indigestion and bloating; no nausea or vomiting.

Other Signs and Symptoms:
Lower back pain, worse in winter; bowel movement is normal; sleep is fine; energy is not bad; moods will be related to the digestive disorder; feels stressed sometimes; 12 years ago had the gall bladder removed.

Tongue: A little enlarged with some tooth marks and cracks, slight white tongue coat

Pulse: Even but a little wiry.

TCM Diagnosis:
Disharmony between Liver and Stomach, deficiency of Spleen Qi

Treatment Principle:
Harmonize the Liver and Stomach, tonify the Spleen Qi

Treatment:
Acupuncture: Zhong Wan (Ren 12), Tian Shu (ST-25), Tai Chong (LR-3), Zu San Li (ST-36), San Yin Jiao (SP-6

Herbal Formulas: *Black Pearl® Chai Hu Shu Gan Wan* (Bupleurum & Cyperus): 12 pills twice per day, *Black Pearl® Xiang Sha Liu Jun Zi Wan* (Saussurea & Cardamom): 12 pills twice per day

Outcome:
After 2 weeks on the herbal formulas with another acupuncture treatment at one week, all of the uncomfortable digestive symptoms are much better, and he is feeling more relaxed than before, tongue the same and pulse normal. Patient was given another acupuncture treatment and was given *ChinaMed® Digestive Tonic formula* (equivalent to *Black Pearl® Xiang Sha Lui Jun Zi Tang*): 3 capsules, twice per day for 1 month. Follow up call three months later: All of the uncomfortable digestive symptoms are gone, and still feeling more relaxed than before.

Case Study ID: GIT005

by Shu Wang | BTCM, registered Acupuncturist/Chinese herbalist, NSW

Female 50, has suffered from severe halitosis for the past 10 years and has tried a variety of treatments with no success.

Main Signs and Symptoms:
She is menopausal has poor digestion and feels depressed. She has a dull complexion and a sad demeanour. Her mouth is dry and the gums are redder than normal.

Pulse: wiry-slippery on the right side and deep-rapid on the left.

Tongue: Pale with a very thin coat

TCM Diagnosis:
Liver-Kidney Yin deficiency with deficiency Heat. Deficiency Heat rising to the upper body and injures the Body Fluids

Treatment Principle: Nourish the Yin and regenerate the Body Fluids.

Treatment Formula:
Formula: *Black Pearl® Zhi Yin Gan Lu Yin* (Rehmannia & Asparagus Formula), 50 pills, 3 times daily for 7 days.

Outcome:
After 7 days there has been a 90% improvement. She was advised to make a soup with Huai Shan Yao (Dioscorea oppositifolia, root) and consume it every day.

Comments:
In general halitosis is due to some form of Heat, affecting the Stomach. Commonly it is excess Heat (i.e.Damp-Heat, Phlegm-Heat, Fire or Heat-Toxin). However, in some patients, especially the elderly the cause may be deficiency Heat, which is due to Yin deficiency of Liver and Kidney and is associated with the decline in hormone levels. The deficiency Heat rises to the upper body and injures the Fluids. In these cases it is not correct to use Heat clearing formulas; one must nourish the Yin and regenerate the Body Fluids.

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"FreshPlant Tinctures - Minimal processing for maximum effect".

Mgbody Magnesium

mgbody@outlook.com | www.mgbody.net | 0408 587 790

Magnesium spray is great to incorporate into your treatments or to sell to clients for home use. No need to hope that clients have their Epsom Salt baths. Massage it into tight, sore or problem areas. Pain, aches and cramps melt away within moments. Mgbody is also great for fatigue, stress, anxiety, restless legs and headaches.

Mgbody Magnesium is 100% Australian. Highly concentrated Mgbody is much stronger and absorbs fast giving you fantastic results. Mgbody magnesium is not flakes diluted with water.

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Please phone/email for enquiries.

Mostly Massage

gmorling@live.com.au | www.mostlymassage.com | 02 9713 9256

Mostly Massage offers quality, approved workshops for massage therapists including;

- Remedial Massage using Thermal Stone for a range of common musculoskeletal problems including arthritis, frozen shoulder and sciatica.
- Understanding the Psoas
- Pure Bliss, the premier 40 thermal stone massage course.
- Marketing your massage business for success

From April 2014, practical, affordable massage workshops will be run by Greg Morling and a range of expert therapists every weekend at our Clinic in Rodd Point, Sydney covering a range of interesting and relevant topics to enhance your massage practice. We also organise the approved Thai Massage, Spa & Yoga course in Chiang Mai every year.

Oligoscan Australasia

jon@karunahealthcare.com.au | www.oligoscan.net.au | 02 4228 0977

For practitioners of CAM to adequately treat patients with chronic diseases, it is essential to have at your fingertips to investigative tools to give the answers you need to create a viable treatment plan. Using the Oligoscan we can detect in only a few minutes the patient's heavy metal load in addition to the bio-availability of their nutritive minerals. We can show patients why they have their symptoms, and help them to see a way out and back to health. Oligoscan is non-invasive, requires no tissue biopsy, and uses state of the art technology called Spectrophotometry.

Next practitioner training day: Sydney : 23rd August at 1.30.

Oncology Massage Training

info@oncologymassagetraining.com.au
www.oncologymassagetraining.com.au | 0410 486 767

Are you turning away clients with cancer? Oncology Massage Limited provide internationally recognised training for therapists who want to work safely with clients with cancer, in treatment for cancer or a history of cancer. Courses are held nationally around Australia, and we will schedule courses in regional areas where there is enough interest. We also maintain a national listing of therapists, trained by OM Ltd, which is accessed by cancer support organisations and hospitals nationally.

Don't turn clients with cancer away, or refer them on. Improve your skills and get the confidence you need to improve client wellbeing.

Contact us at **info@oncologymassagetraining.com.au** for more information or check out the website.

RemStone

hello@remstone.com.au | www.remstone.com.au | 0407 565 980

RemStone advances results and treatment outcomes by assisting prevention, rehabilitation + maintenance - allowing the good things in life to be enjoyed. Desk bound jobs, home life activities or athletic adventures; RemStone is the universal helping hand. Developed in Australia, RemStone is a unique manual therapy offering a less invasive + more efficient treatment for pain and discomfort. RemStone accelerates remedial treatment, enhanced by unique safe + efficient fascial release stone techniques.

Whilst helping the client, RemStone assists the manual therapist gain more efficient results, prevents their own potential injury and extends their longevity in the industry.

If you're a professional therapist - become a Licensed RemStone Therapist in 2014! Earn CE's, advance your skill level, learn safe + efficient deep tissue/fascial stone release techniques and share in RemStone's business model. We supply and support you to integrate stone massage into your business with training + career pathways, stones + equipment, marketing material - RemStone is your ready-made and hands-on solution.

Courses starts soon! JUNE 2014

PRODUCTS & SERVICES GUIDE

SLM Bodywork

info@myotherapy.com.au | **www.learnmassage.com.au** | 0412 212 208

Steve Lockhart is the founder of the SLM Bodywork Therapy and has worked successfully treating people with pain since 1988, providing faster and more effective results than can be achieved with any other forms of bodywork therapy.

His new patients are usually referred by other satisfied patients and this has sustained his busy practice in Sydney and now the Gold Coast for over two decades. He has worked closely with many elite and A list athletes from all over the world. He has written '**The Bad Back Book', How To Fix Pain Using Massage and Bodywork**, and the '**Do It Yourself Guide for Sciatica & Back Pain Sufferers'**.

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Terra Rosa

terrarosa@gmail.com | **www.terrarosa.com.au** | 0402 059 570

Terra Rosa specialised in educational massage DVDs and books. It has the largest collection of massage DVDs in Australia and the world, covering all modalities from Anatomy, Swedish Massage, Reflexology, Sports Massage to Myofascial Release and Structural Integration. We also provide the best in continuing education with workshops by international presenters including Orthopaedic Massage, Taping, Fascial Fitness and Myofascial Therapy.

The ATMS Products & Services Guide will appear in every issue of JATMS

If you wish to list your company, practice, products, services or training course to appear in the June issue's ATMS Products & Services Guide, please contact Yuri Mamistvalov on (03) 8534 5008 or email yuri@commstrat.com.au

Cost is **$150 for one issue** or **$500 for 4 consecutive issues**.

Listing comprises of – Logo, 100 word profile and contact information.

ATMS *sends T-shirts to Africa*

Bill Pearson | ATMS Life Member

Let me start this story by linking two seemingly unrelated things: hundreds of our T-shirts bearing our old logo, and a home for girls at risk in Zambia.

Our CEO, Trevor le Breton, President Maggie Sands and I were chatting one day about the fact that we had many T-shirts sporting the old logo and that our members had seemingly purchased all they were going to. At around the same time I mentioned that one of my nephews, Calvin, was in Zambia at a home called The City of Joy, working with girls at risk and consequently placed there. I contacted Calvin, and we all agreed that two large boxes containing hundreds of T-shirts would be greatly appreciated by the girls and staff.

The City of Joy (what a delightful name considering the circumstances), run by the Salesian Sisters of Don Bosco, houses thirty-one young girls. Some may have suffered physical or sexual abuse, some are orphaned and some are from extremely poverty-stricken rural areas. There is no government funding. The girls' education, meals, clothes, personal items and accommodation are all provided through beneficiaries.

There is a large community development programme where youth from surrounding communities come to the home to assist with building programmes and ensure that sports facilities are repaired. Lights have recently been provided so that this activity can continue at night, which also means that young people who may have been on the streets can go to the home to give their support.

Calvin has returned but his sister Rina and her partner Cody are now there, and Calvin has pledged to return soon. I spoke with all of them before they left and their commitment was palpable.

When you look at the smiles on the girls faces you can understand why.

ATMS Research Committee Call for Members and Reviewers

Do you have research experience? Would you like to contribute to natural medicine research? ATMS Research Committee is calling for Expressions of Interest from anyone who would like to join this dynamic and innovative committee, or join our peer review panel to select papers for publication in JATMS.

Please send a one page Expression of Interest telling us why you'd like to contribute to natural medicine research along with your CV to Dr Sandra Grace, Chair, ATMS Research Committee.

sandra.grace@scu.edu.au.

Continuing *Education*

Continuing education (CE) is a structured program of further education for practitioners in their professional occupations.

The ATMS CE policy is designed to ensure its practitioners regularly update their clinical skills and professional knowledge. One of the main aims of CE is to keep members abreast of current research and new developments which inform contemporary clinical practice.

The ATMS CE policy is based on the following principles:

- Easily accessible to all members, regardless of geographic location
- Members should not be given broad latitude in the selection and design of their individual learning programs
- Applicable to not only the disciplines in which a member has ATMS accreditation, but also to other practices that are relevant to clinical practice which ATMS does not accredit (e.g. Ayurveda, yoga)
- Applicable to not only clinical practice, but also to all activities associated with managing a small business (e.g. book-keeping, advertising)
- Seminars, workshops and conferences that qualify for CE points must be of a high standard and encompass both broad based topics as well as discipline-specific topics
- Financially viable, so that costs will not inhibit participation by members, especially those in remote areas
- Relevant to the learning needs of practitioners, taking into account different learning styles and needs
- Collaborative processes between professional complementary medicine associations, teaching institutions, suppliers of therapeutic goods and devices and government agencies to offer members the widest possible choice in CE activities
- Emphasis on consultation and co-operation with ATMS members in the development and implementation of the CE program

ATMS members can gain CE points through a wide range of professional activities in accordance with the ATMS CE policy. CE activities are described in the CE policy document as well as the CE Record. These documents can be obtained from the ATMS office (telephone 1800 456 855, fax (02) 9809 7570, or email **info@atms.com.au**) or downloaded from the ATMS website at **www.atms.com.au.**

It is a mandatory requirement of ATMS membership that members accumulate 20 CE points per financial year. Five (5) CE points can be gained from each issue of this journal. To gain five CE points from this issue, select any three of the following articles, read them carefully and critically reflect how the information in the article may influence your own practice and/or understanding of complementary medicine practice:

- Setright R. Multivitamins Nutritional Insurance: Are multivitamins beneficial or of no use?
- Kousaleos G. Common low back injuries and therapeutic strategies.
- Ghaedi M et al. Effects of ethanol extract of Commiphora myrrha gum against Helicobacter pylori and inhibition of proliferation of the human AGS cell line in vitro.
- Kirkwood J. Acupressure and myofascia therapy: A unified approach
- Medhurst R. Constipation and its management using homoeopathy
- Moon A. The role of natural medicine in public health: Alcohol and violence in Australia
- Pagura I. Leases: Know your way around your rights and obligations

IT IS A MANDATORY REQUIREMENT OF ATMS MEMBERSHIP THAT MEMBERS ACCUMULATE 20 CE POINTS PER FINANCIAL YEAR. FIVE (5) CE POINTS CAN BE GAINED FROM EACH ISSUE OF THIS JOURNAL

As part of your critical reflection and analysis, answer in approximately 100 words the following questions for each of the three articles:

1 What new information did I learn from this article?

2 In what ways will this information affect my clinical prescribing/ techniques and/or my understanding of complementary medicine practice?

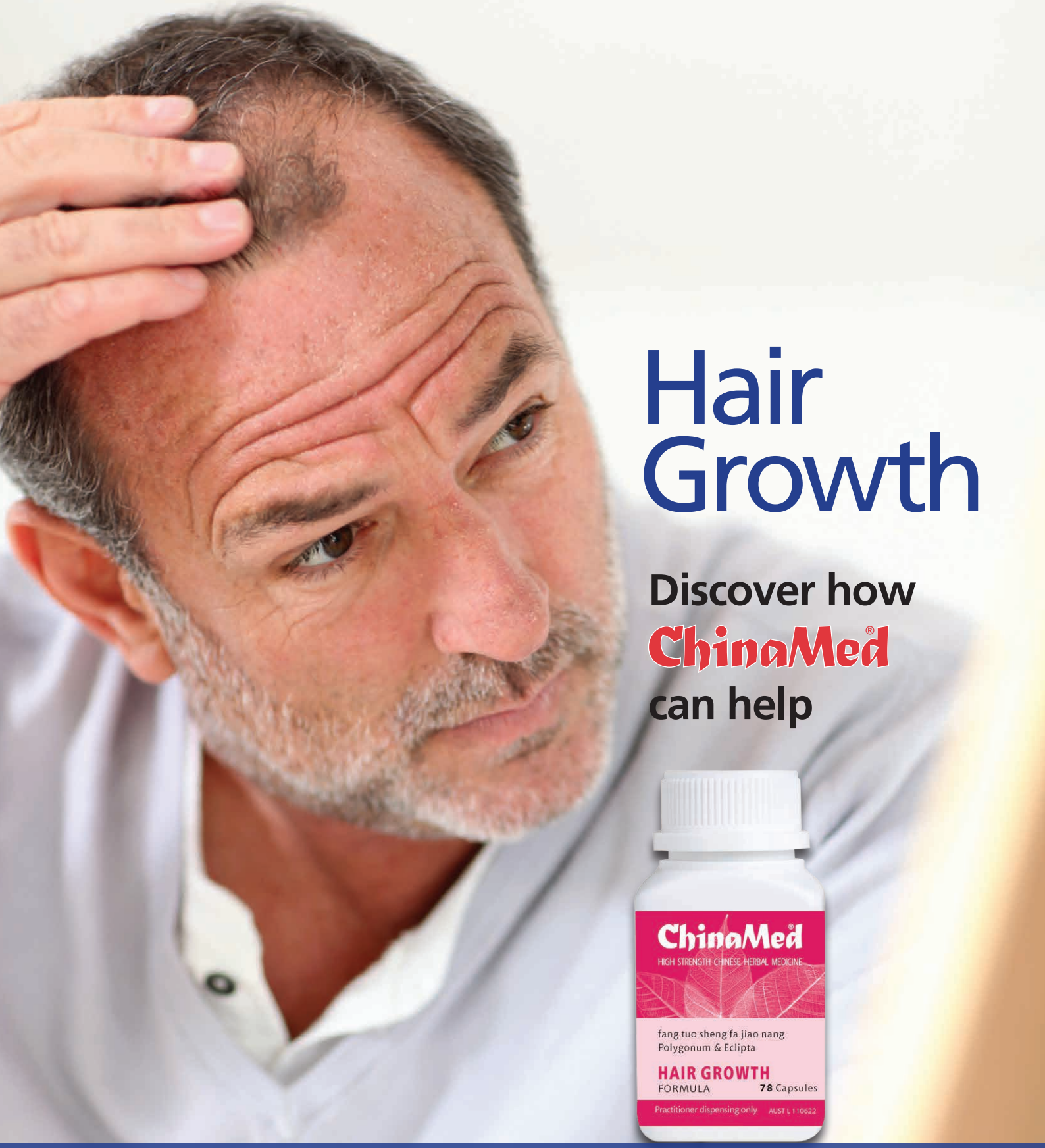
3 In what ways has my attitude to this topic changed?

Record your answers clearly on paper for each article. Date and sign the sheets and attach to your ATMS CE Record. As a condition of membership, the CE Record must be kept in a safe place, and be produced on request from ATMS.

Continuing Education - *Calendar 2014*

MONTH	EVENT	TOPIC	REGION
June 2014	Seminar	Acupuncture Treatment of Tension Headaches	Sydney, NSW
	Webinar	Skin Deep: Nutrition for Better Skin	–
	Webinar	Communication and Referral in Clinical Practice	–
	Seminar	Therapeutic Application for Chinese Cupping	Melbourne, VIC
	Seminar	Advanced Remedial Massage Techniques for thoracic and cervical region (fully booked)	Sydney (Gladesville)
	Webinar	Treating Complex Sensitive Patients	–
	Seminar	Manual Lymphatic Drainage	North QLD
	Webinar	Ayurvedic approaches to rejuvenation and ageing well	–
	Seminar	Advanced Massage treatment - lower limbs	Central Coast - Charmhaven, NSW
July 2014	Webinar	Client Care, Professional Practice and Law and Ethics	–
	Seminar	Advanced Remedial Techniques for Thoracic and Cervical Region	Brisbane, QLD
	Seminar	Treatment Planning and Clinical Records	Melbourne, VIC
	Webinar	Advertising	–
	Seminar	Treatment Planning and Clinical Records	Sydney, NSW
August 2014	Webinar	Website and Social Media	–
	Seminar	Make Better Choices and Have Better Health	Darwin, NT
	Webinar	Nutrition for Fat Loss Strategies	–
	Webinar	How to get back up from a life or Business Beating	–
	Seminar	Treatment Planning and Clinical Records	Adelaide, SA
	Seminar	Nutrition Deficiencies, Body Signs, Clinical Signs and Complex Conditions in Clinical Practice	Canberra, ACT
	Webinar	Uncovering your Invisible Hurdles that are stopping you from succeeding	–
September 2014	Webinar	Communication Skills in TCM and Acupuncture practice	–
	Webinar	Client Care, Professional Practice and Law and Ethics	–
	Seminar	Ayuveda Nutrition	Sydney, NSW
	Webinar	The six foundations to an incredible life and a highly profitable business	–
	Webinar	Clinical Records	–
	Event	Sunday 7th September - ATMS 30th Anniversary Lunch. Cost - tba	Westin Hotel, Sydney CBD
October 2014	Webinar	The Profit Equation - How to increase your business by over 200% in 90 days	–
	Webinar	People, Profits and Purposes - The power of Connectivity, How to build a loyal client base that triples your business	–
	Webinar	Breaking the Habit of being you - why reinventing yourself is imperative in today's market	–
	Webinar	Six Figure Practice secrets - The Do's, the Don'ts and the Must Haves	–

The proposed seminar and webinar topics, dates and locations (for seminars) are subject to change.
Please keep an eye on the ATMS website **www.atms.com.au** for the latest information and to book online.



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