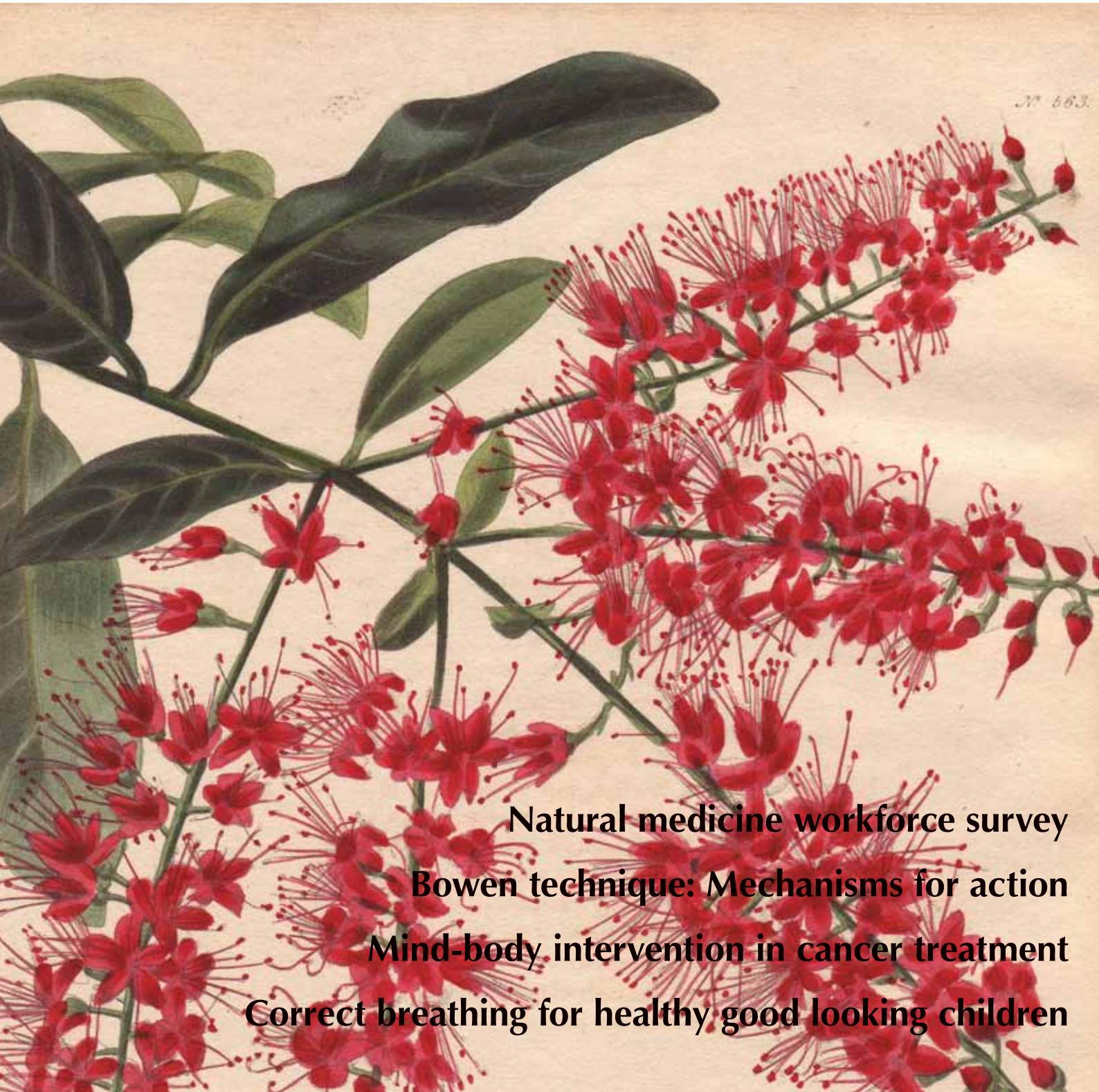
ISSN 1326-3390

JOURNAL OF THE AUSTRALIAN TRADITIONAL-MEDICINE SOCIETY

VOLUME 19
NUMBER 1
MARCH
2013

JATMS



Natural medicine workforce survey

Bowen technique: Mechanisms for action

Mind-body intervention in cancer treatment

Correct breathing for healthy good looking children

The Australian Traditional-Medicine Society Limited (ATMS) was incorporated in 1984 as a company limited by guarantee ABN 046 002 844 233.

ATMS has three categories of membership.
Accredited member $192.50
Associate member $66
Plus a once only joining fee of $44
All prices include GST
Student membership is free

President Sandi Rogers
Vice-Presidents Bill Pearson & Teresa Mitchell-Paterson
Treasurer Allan Hudson

Membership and General Enquiries
ATMS, PO Box 1027
Meadowbank NSW 2114
Tel: 1800 456 855
Fax: (02) 9809 7570
info@atms.com.au
http://www.atms.com.au

State Representatives
NSW, Patrick De Permentier, P.Depermentier@unsw.edu.au
VIC, Patricia Oakley, patricia_rae@hotmail.com
NTH QLD, Cathy Lee, catherine.lee5@bigpond.com
STH QLD, Amy Cooper, ab_cooper@hotmail.com
TAS, Bill Pearson, chimed@billpearson.com.au
ACT, John Warouw, jwarouw@bigpond.com
SA, Vacant
WA, Vacant

Contents *March 2013*

President's Message | *Dr Sandi Rogers EdD, ND*

I hope you have all enjoyed the holiday and festive season and spent time with your loved ones. 2013 will be a truly exciting year for us all as we have many exciting projects to contribute to and see you, our members, hopefully participating and networking with each other.

A NEW YEAR AND EXCITING CHANGES

As we have entered the twenty-ninth year of this wonderful organisation, I took time over the break to read past minutes of board meetings and it is truly remarkable how ATMS has grown and prospered over this time. I think the key reasons why we have succeeded are these:

1. You, our members, and your continued support. You are our backbone and all we have achieved is down to you. Through your membership ATMS continues and will move forward in 2013 to realise extraordinary outcomes.
2. The dedication of all who those work in the organisation. We all have one thing in common: we are passionate about ATMS and about meeting your needs.

Everyone has always worked with passion and commitment – a truly powerful combination.

THE BOARD

Here's what we'll be focussed on in 2013:

- Working on the next stage of the strategic plan that will guide the board and management to steer ATMS in a positive direction. Our strategic plan will be published and offered to all members so you will be familiar with our focus for the years ahead (2013 – 2016.)
- Working with our CEO, Mr Trevor Le Breton, as he leads changes to streamline services to members, and ensure we remain financially viable.
- Ensuring ATMS continues to grow as a fiscally successful operation.
- Summit success in 2013!
- Compliance as an effective and efficient corporate citizen.

MOVING IN THE RIGHT DIRECTION

As organisations grow many aspects of the company must move together in the same direction, which in itself is a challenge. Your ATMS will be able to achieve positive outcomes through the combination of an effective board and experienced and focused CEO.

Balance between financial control and value for our members is an important consideration and it will form the foundation of the strategic plan, as it is you, the members, we care about most.

Developing the next stage of our strategic plan will be the key activity for the board in these first months of 2013.

It is timely, however, to acknowledge all the people who have dedicated their time in the past to help ATMS achieve our current standing today. Thanks to them we are able to keep moving in the right direction.

FINAL YEAR OF MY TERM AS PRESIDENT

At the beginning of my last term as President, I want to say I am excited by the future for natural medicine and ATMS specifically. Although there are always challenges, a united and focussed board, working on an accepted strategic plan, linked with dedicated members and an efficient management team, will ensure a bright future.

29TH AGM AND 30TH AGM'S

I would like to remind you all to place in your calendars the date for our 29th AGM. I hope you can come along and join us!

29th AGM:

Date | Sunday, 22 September 2013

Location | Gold Coast, Queensland (why not plan an extended break NOW?)

Our BIG 30th AGM (2014) will be held in New South Wales (venue to be determined) and it is usually around the third weekend in September. We will be working on setting this date early, so keep these two great events in mind. I look forward to seeing lots of members there!

WEBINARS

As a direct response to members' suggestions, our committee that looks after seminars has been working on delivering webinars. As you would be aware, these have commenced and are being very well attended. If you have any suggestions for a webinar please contact the office, or contact me (sandi@nctm.com.au) and I will pass your message on.

SUMMIT

What a great year this is going to be with our summit just around the corner and Dr Patch Adams already preparing for his journey Down Under. Please book now as this event is sure to be impressive. A lot of hard work has gone into it and your ATMS will be on display for all to see.

CEO

In order for ATMS to move forward into the corporate world, while keeping our heart and soul in natural medicine, we needed to seek the services of a Chief Executive Officer. Our CEO, Mr Trevor Le Breton, joined us in November 2012, and he is proving to be an invaluable asset. Please read his report in this journal. I would like to offer him my personal thanks for his hard work and seamless transition into our organisation.

WEBSITE AND SOCIAL MEDIA

We are seeing major improvements with our website and our social media continues to link our members with each other and to promote our organisation in the wider community. Through social media our brand continues to grow.

As members, please visit our website and join in the discussions. We welcome feedback about any aspect of our organisation and we will be sure to respond to you. By engaging with us you will get the best value for your membership.

QUALITY ASSURANCE

Briefly, this project is moving ahead and I am very excited by the progress we are making, and I look forward to reporting on it in detail at our twenty-ninth AGM. All members will be notified about our quality assurance project and will be invited to participate.

CALL TO ACTION

Closing off for this edition I am excited about the months ahead and what we will be able to report to you at our AGM on the Gold Coast in September, and then it's all stops out for the celebration of our 30th anniversary in 2014!

My call to action for each member is to come along to the summit, featuring Dr Patch Adams (go to www.atms.com.au), and make the decision to come along to our AGM on the Gold Coast.

Until next time,
Find happiness in
every moment.

CEO's Report | *Trevor Le Breton*

Having been in the role now for about four months, I am developing a much better understanding of the organisation. While I certainly have much more to learn about this incredibly diverse group called the Australian Traditional Medicine Society, at least I can begin to see the opportunities the organisation, its members and the industry as a whole have.

ATMS and its members should stand out from the crowd and be the experts of choice to help ensure our industry meets the challenges of the future. No other organisation comes remotely close to ATMS and its members' ability to recognise and address the diversity of challenges and opportunities facing our huge industry during this important time.

A lot has been going on at the support office in Meadowbank. We have reviewed the structure and position descriptions to ensure that staffing is aligned to provide the best service for our members' needs. This includes an upgrading of our phone system, a return to a human voice answering each incoming call, the introduction of an on hold message to keep callers better informed of what is happening at ATMS and in the industry at large, and increasing our operating hours to 8.30am to 5.00pm Monday to Friday.

I am also delighted to announce that our much awaited revamped website went live on 11 February and I encourage members to visit and enjoy the improved functionality. As always if there is something you feel we can do to further enhance the site, please let us know as it is a constant 'work in progress'.

Recently we were invited to make a submission to the Chief Medical Officer on the revision of public health fund rebates. In short ATMS is opposed to such changes and has provided a 25 page detailed analysis of the issues surrounding private health insurance for the natural therapy profession. Our submission argues strongly against restricting the benefits that health funds extend to customers who choose to consult natural therapy practitioners. Further the submission outlines why the proposed changes will have significant, negative and lasting impacts on the businesses of ATMS members, the future viability of natural therapies in Australia and the health and wellbeing of the millions of Australians who use the services of natural therapy professions.

In our conclusion to the CMO, we stated " ATMS notes that in the 2012 budget $15.4 billion was committed to state health services. The existing federal funding for natural medicines in comparison is a meagre $30 million per year, yet considering this sector contributes to the improved health care of Australia the federal government does not give the industry the credit it deserves."

ATMS believes that it should be up to individuals whether they choose private health insurance cover for natural therapies, based on their individual circumstances, health needs, and their customary use of natural therapies. The clients of natural therapies practitioners would almost universally say that all natural therapy modalities are effective, safe and affordable.

Visit the website to download or read our full submission (www.atms.com.au).

Since the last journal there have been some changes in roles within our Board and Governance structure. Mr Allan Hudson has stepped down as Treasurer and has been replaced by long-serving board member Ms Maggie Sands. Allan has also stepped down as Company Secretary and this role has been absorbed into my own role as Chief

Executive. Mr Raymond Khoury has taken on the role of Chair of the Complaints Committee, and Mr David Stelfox that of Acting Chair of the Academic Review Committee while that committee's new Terms of Reference are being established.

Elsewhere in the Journal you will see much mention of the upcoming Summit to be held at Rosehill Racecourse from 3-5 May 2013. It will be a great event and certainly something for everyone. Concurrent sessions will mean that you can pick and choose topics of interest to you. It's also a great opportunity to catch up with old friends and colleagues. We have extended the early bird price for the first 200 registrations and these are all but gone as I write, so to secure one of the remaining early bird offers please contact the office on 1800 456 855 or visit the Summit website www.atmssummit.com.au

Thank you to the over 3,500 members who responded to the recently conducted Workforce Survey. This survey and the membership survey also recently conducted will form the basis of the strategic planning session the Board will undertake in the coming months to provide a plan for the next three years. Reports on both surveys can be found elsewhere in this edition.

Also on our agenda is a new Constitution, one that reflects today's ATMS and the requirements of our members for the years ahead. Presently I am working with the Board on a new look Constitution which is in line with the Corporations Act, and in the lead up to the 2013 AGM will be undertaking a series of consultations with the membership to discuss the proposed changes, and the rationale behind them.

We have held a meeting with the Professional Educational Seminars Committee and can inform members that a wide-ranging calendar of events has been planned for the present year. The Committee is also formalising the selection criteria for prospective presenters so that this is transparent to all members and industry professionals. I encourage you to attend these events to ensure you maintain the CPD points you require for accredited membership. An audit of CPE points will commence in late March, in which 5% of the membership will be randomly audited.

I also encourage all of our readers to complete the readership survey which is also enclosed in this edition or available online. The purpose of this survey is to gauge from you the reader what type of journal you wish to receive in the future, the types of information you want, and the format in which you receive it.

I trust you enjoy reading this edition of the Journal and if you have any ideas on how I or any of our team can serve you better, please don't hesitate to email me trevor@atms.com.au or call us on 1800 456 855. It is your association so get involved and remember we are here for all of you!

Response to ATMS Members' Survey

Thank you to all of our members who took the time recently to complete the Membership Survey. This survey covered many topics that the Board and Management will use as the basis of the next three-year Strategic Plan. Already we have addressed some the key issues you have flagged, including a wider range and frequency of seminars and the introduction of webinars, which we hope will go some way towards assisting our members in rural areas. As the year progresses we plan to hold more face to face seminars in regional towns than we have previously, and to ensure there is a balance among the topics offered, beyond perhaps more regular seminars on massage therapies. The Board is well aware of the diversity of modalities that makes up ATMS and our challenge now is to provide opportunities for professional development and interaction for all these groups.

Other items are not so easily addressed. However in January we commenced a series of meetings with the Health Funds so that ATMS and the funds can work together more proactively to the benefit of our members and the members of the health funds who are ultimately your clients. This initiative has been welcomed by the health funds, who have commented during the meetings in what high regard they hold ATMS.

Our new plan will be released in June, following which I will be moving around the states to speak with the members regarding the plan and the direction for ATMS beyond 2013. I look forward to seeing you during one of these free member events.

WHAT'S IMPORTANT TO YOU…

WE SHARE YOUR VISION FOR THE FUTURE

Certificate in Paediatric Massage Consultancy

with the Infant Massage Information Service

- ✓ **Internationally accredited qualification (IARC)**
- ✓ Run private appointments or classes with parents
- ✓ Teach massage for infants and children
- ✓ Ongoing support following training
- ✓ **Hospital based training programs**
- ✓ Professional, comprehensive program
- ✓ 24 CPE points awarded to ATMS members.

infant massage information service

ATMS

IARC

MidPLUS

Phone 1300 558 608 **www.babymassage.net.au**

ATMS & VETAB Accredited Courses

Learn *Hypnosis*

Continuing Education Courses

Online and in-house available

ACADEMY OF APPLIED HYPNOSIS

"The True Specialists in Clinical Hypnotherapy Training"

Increase your clients with your additional skills

Introductory & Advanced Training - Enhance your modality

Advanced Practitioner Certificate in Clinical Hypnotherapy

Australian Qualifications Framework

Certificate IV in Clinical Hypnotherapy (Reg: 91524NSW)

Diploma of Clinical Hypnotherapy (Reg: 91525NSW)

Adv. Diploma of Clinical Hypnotherapy (Reg: 91526NSW)

Nationally Recognised Training

For Information: Ring* (02) 9415 6500 *or

Email:* admin@aah.edu.au *for information.

1st Flr 302 Pacific Hwy Lindfield NSW 2070 Tel: (02) 9415 6500 Fax: (02) 9415 6588 Web: www.aah.edu.au

Executive Director: Leon W. Cowen AdvDipCH, DipHypMast(USA), GradDipAppHyp, MastCH, FAHA, MATMS

ACUPUNCTURE AUSTRALIA

VISIT OUR NEW WEBSITE FOR INFORMATION AND ONLINE STORE

www.acupa.com.au

estore

WHOLESALE ORDERS WELCOME

Safe and Secure payment processing

VISA AMERICAN EXPRESS MasterCard

Direct Deposit Bank Cheque

USE THE FIRST TIME CUSTOMER 25% DISCOUNT TO PURCHASE HERBS

SUNHERBAL SPECIAL*

Spend $220 on SunHerbal products & receive 2 units of ChinaMed & 2 units of the Black Pearl **valued at $100 (RRP)**

35% OFF

35% DISCOUNT for First Time Customers*

FREE NEEDLE TRIAL WORTH $50.00 CALL TODAY!

Option 1 - The Complete Pack

Receive one box each of Knight, Natural & AcuMax needles and a blister pack of AsiaMed & Easy 20 needles, 4 FREE

Option 2 - The Premium Pack

The quality will amaze you. Receive 2 boxes each of Natural & AcuMax needles 4 FREE

Option 3 - The Ultimate Pack

For ultimate painless therapy, receive 1 box each of AcuMax & AsiaMed needles 4 FREE

ATMS Journal Specials

Knight Needles
with tubes, 50+ boxes deal
Lowest price in Australia
Only $3.60+GST per box

Easy 20 Needles
Bulk Pack 2000 needles/box
$3.30+GST / 100 needles
Price: $66+GST per box

SAVE 29%

Natural Needles
with tubes, 50+ boxes deal
Save 29% on competitors price
Only $5.20+GST per box

AcuMax Needles
Superb Japanese-style needles
US made stainless steel wires
20% off catalogue price

Monthly Specials
Hundreds of items listed on website
TDP CQ29 Jumbo Head Lamp
Was $360+GST,
Now $320+GST

Timber Massage Table

SAVE $154

With tilting backrest & extension kit
Was $360+GST
Special Price $220+GST

Massage Chair
Lowest price in Australia
Was $160+GST
Special Price $120+GST

Hwato SDZ III

SAVE $44

Needle Stimulator
Latest 6 channel needle stimulator
with TENS function & accessories
Was $350+GST
Now $310+GST

*** Terms: To receive the discounts, please mention the ATMS Journal Specials or the Discount Voucher when making an order.**

ACUPUNCTURE AUSTRALIA Pty Ltd
Call: 1800 886 916 Fax: 07 3808 8428 Email: info@acupa.com.au Web: acupa.com.au
Shop: 19/25 Parramatta Road, UNDERWOOD, QLD 4119

The Natural Medicine Workforce in Australia: A National Survey Part 1

Grace, S., Rogers, S., Eddey, S.

Between 1996 and 2001 the growth in complementary health occupations represented the second highest increase (29.6%) of all health occupations (Australian Government Productivity Commission, 2005). This rapid increase in the natural medicine workforce appears to have had little effect on government planning and policy. For example, although the Australian Government Productivity Commission report acknowledged the growth of the complementary and alternative medicine (CAM) workforce, it did not address any role that CAM might play in the future health system. There was also no mention of CAM practitioners in the Federal, State and Territory governments' $500 million Australian Better Health Initiative aimed at managing chronic illnesses and preventive medicine (Australian Government Department of Health and Ageing, 2006) despite these being the main reasons that people choose natural medicine (Department of Human Services, 2003; MacLennan, Myers, & Taylor, 2006; Mulkins, Verhoef, Eng, Findlay, & Ramsum, 2003). The Australian Health Workforce Taskforce was established to manage major reforms to the Australian health workforce. Its agenda is to implement workforce reform and devise solutions that integrate workforce planning, policy and reform with the necessary reforms to education and training. Specific aims include increasing supply and reforming the workforce (e.g. by supporting new models of care, new and expanding roles, and multi-disciplinary teams). In this climate of significant health care reform it appears that little attention is being given to existing and potential contributions of natural medicine practitioners or to education reforms for the future, an area of neglect that is becoming increasingly entrenched.

In 2005 a national population-based survey found that 68.9% of respondents had used at least one of 17 complementary and alternative (CAM) therapies in the previous 12 months and 64% had visited a CAM practitioner in the same period (Xue, Zhang, Lin, Da Costa, & Story, 2007). Despite this increasing public endorsement, however, little is known about the natural medicine workforce. Three national surveys of natural medicine practitioners, funded by the Department of Health and Ageing, were conducted in Australia in 2000 (Bensoussan, Myers, Wu, & O'Connor, 2004; Hale, 2002, 2003). These surveys were followed by a review of naturopathy and Western herbal medicine (Department of Human Services, 2003). Workforce surveys need to be repeated to provide accurate and up-to-date data on the natural medicine workforce in Australia which could be used to lobby government policy makers and to drive professional associations' strategic planning.

The aim of this project was to survey Australian natural medicine practitioners belonging to a professional association in order to update what is known about their profile and work practices.

METHOD

The Australian Traditional Medicine Society Research Committee undertook to lead the project. The Committee met on several occasions to develop a national workforce survey. Where possible questions from previous surveys of the natural medicine workforce in Australia were repeated. A list of all natural medicine associations in Australia was compiled using information from previous surveys and searches or through online telephone directories www.whitepages.com.au and www.yellowpages.com.au, and through the associations listed on www.naturaltherapies.com.au. Sixteen associations elected to participate in the survey (Figure 1).

The draft survey was circulated to office bearers of each professional association for feedback and the survey was modified accordingly. The five members of the ATMS Research Committee piloted the survey with a minimum of five participants each and feedback from the pilot was also accommodated.

The initial invitation to professional associations sought opinions about using paper surveys for those members who were not contactable by email. The associations elected to use electronic distribution only. The survey was converted into Qualtrics, a comprehensive electronic, on-line survey tool. Each association was responsible for emailing the link to the survey to their

members and for emailing one reminder two weeks after the initial invitation. A total of 14174 natural medicine practitioners were invited to participate.

Australian Breathwork Association

Australian Homoeopathic Association [AHA]

Australian Kinesiology Association

Australian Naturopathic Practitioners Association [ANPA]

Australian Reiki Connection Inc. (ARC)

Australian Society of Clinical Hypnotherapists

Australian Traditional Medicine Society

Bowen Therapist Federation of Australia

Craniosacral Therapy Association of Australia (CSTAA)

Energetic Healing Association (EHA)

International Aromatherapy and Aromatic Medicine Association (formerly the IFA [International Federation of Aromatherapists] Australia branch)

National Herbalists' Association of Australia [NHAA]

Pacific Association of Craniosacral Therapists (PACT) [Australia, NZ, Asia]

Reflexology Association of Australia

Reiki Australia

Shiatsu Therapy Association of Australia

Figure 1: Natural medicine associations who participated in the natural medicine workforce survey

The ATMS Research Committee offered all participants the chance to be in a draw for an iPad. The winner was selected using an electronic random number generator. Data analysis was conducted using Excel and SPSS.

RESULTS

A total of 3784 responses were received between 7 September 2012 and 8 January 2013. The survey was launched on 4 October 2013 and 9 responses collected before launch were deleted as they were survey previews. After blank, duplicates, incomplete surveys, and surveys from participants not residing in Australia 3177 responses remained for analysis. Due to missing data points, the total sample size for some questions may be different.

The results are presented in two parts:

- Part 1: practitioner and consultation profile (presented in this paper)
- Part 2: education, referral patterns and adverse rea tions (will be presented in the June edition of this journal)

PRACTITIONER PROFILE

Primary disciplines were clustered into five main categories:

- Registered professions including medicine, osteopathy, chiropractic, acupuncture and Chinese medicine, podiatry and psychology
- Physical medicine including massage and bodywork therapies in all their forms (e.g. Swedish massage, remedial massage, aroma-therapy massage, reflexology, kinesiology, Shiatsu, traditional Chinese massage, deep tissue massage therapy etc)
- Ingestive medicine including Western herbal medicine, vitamins and minerals, nutritional supplements, aromatherapy products, and Ayurvedic and other traditional medicines
- Energetic or vibrational medicine including Bach flower remedies, Australian bush flower remedies and homoeopathy
- Mind-body medicine including cognitive behaviour therapy, counselling, hypnotherapy, meditation, guided imagery, hypnosis, biofeedback and spiritual healing

Just over half (57.5%) of respondents were physical therapists and 25.2% practised some form of ingestive medicine (see Table 1). Most respondents (84%) were currently in clinical practice.

Respondents were predominantly female (73%); 16% were male and 11% did not specify their gender. The most commonly reported age bracket (30%) was 45-54 years, followed by 22% in the 55-64 age bracket and 21% in the 36-45 age bracket. Only 11% of respondents were 35 years or younger (see Figure 2).

	In practice (n)	Not in practice (n)	Total (n)	Total (5)
Energetic Medicine	248	48	296	9.3
Ingestive Medicine	663	139	802	25.2
Mind-Body Medicine	50	5	55	1.7
Physical Medicine	1670	158	1828	57.5
Registered Profession	184	12	196	6.2
Total	2815	362	3177	100

Table 1: Primary Disciplines

Thirty three percent of respondents had been in practice for between 1 and 5 years and 23% were still in practice after 16 years (see Figure 3).

Respondents were asked for information about their consultations. Just over half (54%) of respondents were conducting an average of ten consultations per week: 33% reported an average of between 1 and 5 consultations per week, 21% reported an average of 6 to 10 consultations. A further 23% of respondents reported an average of 11-20 consultations; 9% reported an average of 31 to 40 consultations; 3% reported an average of 41-50 consultations; and 1% reported an average of more than 50 consultations per week. Gross income by primary discipline is presented in Figure 4.

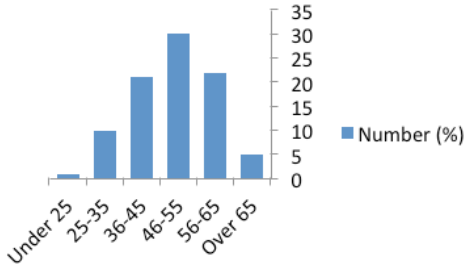


Figure 2: Age of respondents (years)

Figures 5 to 8 describe length of consultations and average consultation fees. For physical therapy consultations, the most common initial consultation fee was between $60 and $80. Initial consultation fees were higher for ingestive medicine, energetic medicine and mind-body medicine consultations with the most common fee between $80 and $100 (see Figure 5).

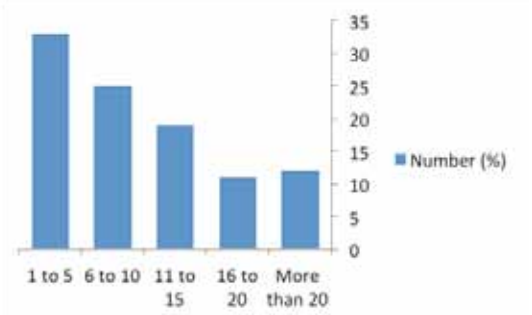


Figure 3: Years in Clinical Practice

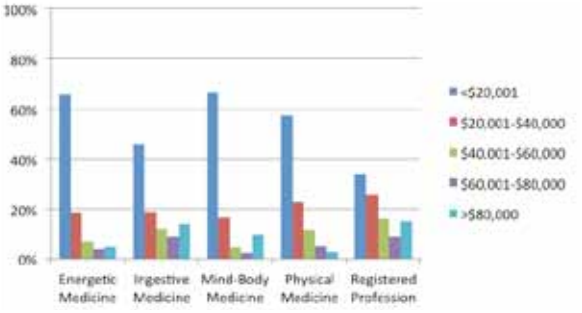


Figure 4: Gross income by primary discipline

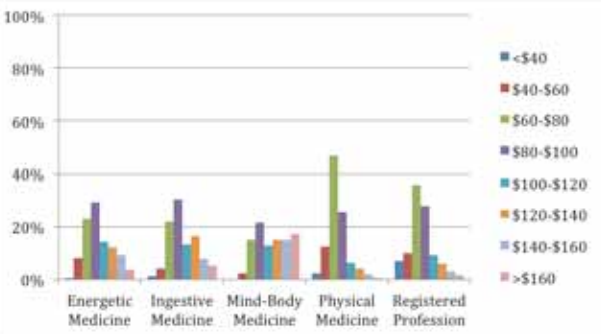


Figure 5: Standard fee for initial consultation

Natural medicine consultations appear to be characterised by long consultations with consultations lasting more than 60 minutes predominating. There were very few reports of 15 minute natural medicine consultations (see Figure 6).

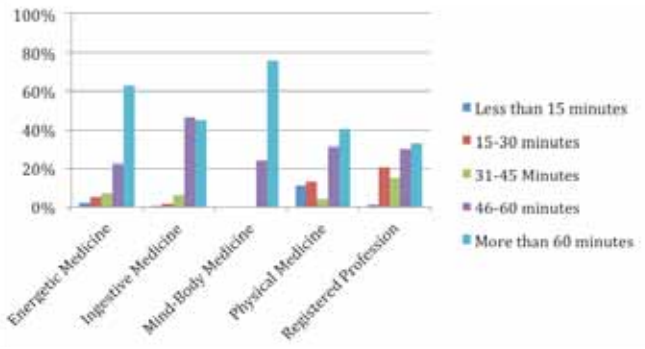


Figure 6: Standard length of initial consultation

The fee for follow-up consultations was $60-$80 for all disciplines except mind-body medicine where the fee for initial and subsequent consultations was often the same ($80-$100). Physical therapists tended to charge the same fee ($60-$80) for initial and subsequent consultations.

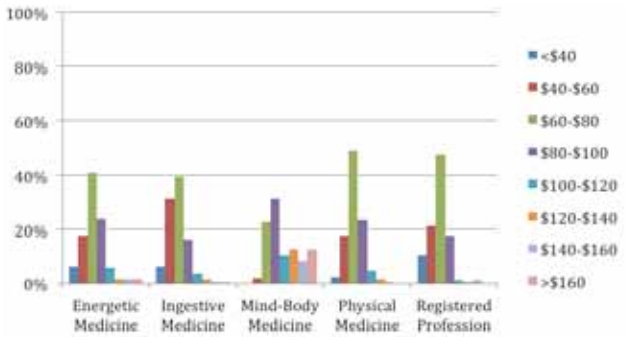


Figure 7: Standard fee for follow-up consultations

Follow-up consultations were generally shorter than initial consultations. This was particularly the case in energetic, mind-body and physical medicine where the most commonly reported length of initial consultation was more than 60 minutes and subsequent consultations were 46-60 minutes. Subsequent consultations in ingestive medicine were typically 31-45 minutes, compared to initial consultations of 45 minutes or longer (see Figure 8).

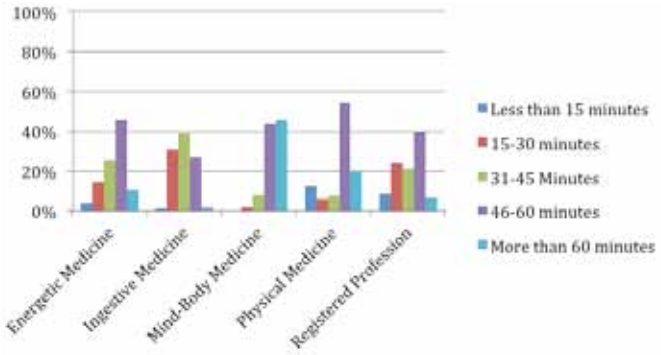


Figure 8: Standard length of follow-up consultation

WORK SETTING

Thirty five percent of respondents reported working in more than one location. The predominant work setting for all practitioners was solo private practice (54%). Twenty six percent of respondents worked in group practices. Fifteen percent of respondents worked in a clinic with other natural medicine practitioners. Only 2% worked with medical practitioners (see Table 2).

Respondents currently in clinical practice were asked to estimate the percentage of their patients/clients who claimed a health fund rebate. Of the 2794 participants who provided responses, 899 (32%) estimated up to a quarter of their patients/clients claimed health fund rebates for their services: 541 (19%) estimated between 26 and 50%; 743 (27%) estimated between 51 and 75%; and 611 (22%) estimated that between 76 and 100% of their patients/clients claim health fund rebates. Table 3 shows these estimates by primary discipline.

SUMMARY OF PART 1

The data presented in Part 1 of the Australian Natural Medicine Workforce Survey suggests that just over half of practitioners (57.5%) practice physical therapies. The next largest group comprises ingestive practitioners (e.g. Western herbal medicine practitioners, nutritionists, Ayurvedic and other traditional herbalists) who account for 25.2%. The workforce is predominantly female (73%). Seventy three percent of those who responded were 35 years or older. It appears from these figures that a shortage of practitioners may be looming within 20 years with only 11% of the workforce being under 35 years old. A third of the workforce had been in practice for only one to five years. However, 23% were still in practice after 16 years. Just over half (54%) of respondents were conducting an average of

ten consultations per week and this was reflected in levels of gross incomes derived from natural medicine practice that are below the national average. However, it is possible that many natural medicine practitioners have chosen to work in part time practices and may have other sources of income. The most common initial consultation fees for energetic, mind-body and ingestive medicine practitioners were $80-$100; physical medicine practitioners commonly charged $60-$80 for their initial consultations. It appears that natural medicine practitioners spend a long time with their patients/clients in their initial consultations (more than 60 minutes for all primary discipline except ingestive medicine practitioners, who report slightly more 45-60 minute initial consultations). The fee for follow-up consultations was most commonly $60-$80 for all disciplines except mind-body medicine where the fee for initial and subsequent consultations was often the same ($80-$100). Follow-up consultations for all disciplines were still most commonly reported as 46-60 minutes. The most commonly reported work setting was solo private practice (54%). Although 26% of respondents

Work Setting	n	%
Solo private practice	1708	54
Group practice with natural medicine practitioner(s)	490	15
Group practice with medical practitioner(s)	71	2
Group practice with allied health practitioner(s) (e.g. physiotherapist, chiropractor, osteopath)	301	9
Retail outlet (e.g. pharmacy, health food store)	108	3
Spa, gym, resort	63	2
Mobile practice	160	5
Blank	276	9
Total	3177	100

Table 2: Work Setting

	0-25	26-50	51-75	>75	Blank
Energetic medicine	52.8	15.7	20.6	9.7	1.2%
Ingestive medicine	23.4	21.6	31.7	22.8	0.6
Mind-body medicine	78	8	10	4	0
Physical medicine	32.3	18.7	25.5	22.9	0.6
Registered profession	19	22.8	28.3	22.7	2.2

Table 3: Estimates of number of patients?clients claiming health fund rebates

worked in group practices only 11% reported working in clinics with allied health and medical practitioners, suggesting that the integration of natural medicine and mainstream healthcare is happening slowly. Estimates of the numbers of patients/clients claiming health fund rebates for natural medicine services suggest that health insurance provides a considerable degree of support for the natural medicine professions.

REFERENCES

1. Australian Government Department of Health and Ageing. (2006). Australian Better Health Initiative: Promoting Good Health, Prevention and Early Intervention. Retrieved 31 January, 2007, from www.health.gov.au/internet/wcms/publiching.nsf/Content/feb2006coag03.htm

2. Australian Government Productivity Commission. (2005). Australia's Health Workforce. 2006(27 March). www.pc.gov.au/study/healthworkforce/finalreport/html

3. Bensoussan, A., Myers, S. P., Wu, S. M., & O'Connor, K. (2004). Naturopathic and Western herbal medicine practice in Australia-a workforce survey. Complementary Therapies in Medicine, 12(1), 17-27.

4. Department of Human Services. (2003). Health Practitioner Regulation in Victoria. Review of naturopathy and Western herbal medicine. Retrieved 15 August, 2006, from www.health.vic.gov.au/pracreg/naturopathy.htm

5. Hale, A. (2002). 2002 Survey of ATMS: acupuncturists, herbalists and naturopaths. Journal of the Australian Traditional Medicine Society, 8(4), 143-149.

6. Hale, A. (2003). 2002 National Survey of Remedial Therapists. Journal of the Australian Traditional Medicine Society, 9(3), 119-124.

7. MacLennan, A H, Myers, Stephen P., & Taylor, Anne W. (2006). The continuing use of complementary and alternative medicine in South Australia: costs and beliefs in 2004. Medical Journal of Australia, 184(1), 27-31.

8. Mulkins, A., Verhoef, M., Eng, J., Findlay, B., & Ramsum, D. (2003). Evaluation of the Tzu Chi Institute for Complementary and Alternative Medicine's Integrative Care Program. Journal of Alternative & Complementary Medicine 9(4), 585-592.

9. Xue, CCL, Zhang, AL, Lin, V, Da Costa, C, & Story, DF. (2007). Complementary and alternative medicine use in Australia: A national population-based survey. Journal of Alternative & Complementary Medicine, 13(6), 643-650.

The Importance of Correct Breathing for Raising Healthy Good Looking Children

Dr. Rosalba Courtney N.D., D.O., PhD

The state of a child's airways and their breathing habits should be a fundamental consideration if we wish to optimize their health, facial attractiveness, postural and skeletal development, cognitive function and development. The modern epidemics of chronic non-communicable illnesses, such as asthma, allergy, sleep apnea, ADHD, depression, anxiety, postural dysfunction, crooked teeth and orthodontic problems, plaguing children in western and industrialized countries continue to increase.[1] These diseases appear to be linked and clinicians report that a child with one of these conditions tends to have several of the other.[2] Epidemiological studies suggest that this has to with environmental rather than genetic factors.[3] Changes in diet, social changes, reduced activity levels, reduced exposure to the complex microbial "old friends" with which we and our immune systems co-evolved and exposure to increasing levels of environmental toxins have all been shown to play a part in the rise of chronic childhood illnesses.[4-6] Improved diet, better gut health, reduced exposure to environmental toxins and other stressors are essential to improving the health of today's children. However, to best help children with these conditions we also need to do what we can to ensure that their airways are not obstructed and that they have good breathing.

Children with the chronic health problems and changing facial structure of modern society mentioned above very often also suffer from poor respiratory health and poor breathing habits.[7-10] Children with allergies and poor immune health frequently have obstructed airways due to enlarged adenoids and tonsils, blocked and runny noses, asthma, croup and frequent upper respiratory tract infections. As a result of or in conjunction with this, children develop functional breathing disorders such as mouth breathing, breathing pattern disorders, sleep-disordered breathing, sleep apnoea, hyperventilation and hypoventilation. These disorders of breathing can then contribute to structural changes and vicious cycles of dysfunction that have repercussions for children's health and the attractiveness of their appearance.

MOUTH BREATHING IN CHILDREN

Many children in western society habitually breathe through their mouths rather than through their noses. This not only changes the structure of their faces to make them more narrow and disproportionate but also has many adverse health consequences.[10] According to several observers of adults and children in traditional pre-industrial societies, mouth breathing is rare and facial structure is almost universally characterised by a broad palate, straight teeth and a complete absence of the dental crowding and malocclusion so commonly seen in today's children. The 18th century ethnographer George Catlin studied over 150 native American Indian tribes, comprising two million people. Catlin is famous for his 500 portraits of men, women and children and colourful journals describing all aspects of native American life. He also became known as a passionate advocate for the importance of nasal breathing. His book, *The Breath of Life or Malrespiration and its Effects upon the Enjoyment of Life of Man*, expounds on this topic and describes the diligence with which Native American mothers ensured their children's mouths were closed, attributing their superb health and "total absence of malformation of their beautiful sets of teeth, scrupulously kept together by the lower jaws" to this behaviour.[11] Dr. Weston Price, a dentist from Cleveland, Ohio, made similar observations after travelling the world in the 1930's and 1940's examining the diet, habits, health, teeth and facial structure of over 12 different cultural groups both hunter-gatherer and agricultural who lived pre-industrial lifestyles.[12] Fossil records suggest that the change in human facial structure towards a narrower and less functional shape began with the dawn of agriculture and increased after the industrial revolution but that the most radical

changes have been since the 19th century.[13,14] In modern western society mouth breathing is most prevalent in children under the age of 13. After this age it sometimes improves because of growth patterns in the face which widen the airway.[15] However it is important to improve breathing habits and optimise the function of the airway as early as possible in young children because many of the detrimental changes brought about by disordered breathing on structure, health and cognitive function by disordered breathing can have lasting consequences.

EFFECTS OF MOUTH BREATHING ON STRUCTURAL DEVELOPMENT: THE FACE, TEETH AND JAWS

The changes in facial structure occurring in modern humans have a lot to do with the extent to which they breathed through their mouths as children.[10] A child who has a blocked nose or who has a perceived or real difficulty getting enough air will either become obliged to breathe through their mouth rather than through their nose or choose the oral route because it is more comfortable or has become habitual. Tongue position and swallowing patterns change as a result of this and the forces that normally shape facial and dental development become aberrant.

The tongue of a mouth breathing child sits low in their mouth and the normal pressures needed to develop the width of the upper palate are reduced or abnormal. If tongue position is incorrect, swallowing pattern tends to become abnormal. Normally every time we swallow, (1-2 times per minute) the tongue pushes upwards into the palate and then backwards to complete the normal swallow. When a predominately mouth breathing child swallows the tongue tends to thrust forward instead of upwards and the lower jaw tends to moves backwards instead of staying still. This creates forces that distort the position of the teeth and work against normal facial growth.

POSTURAL EFFECTS

Posture, especially of the head and neck, is also very much influenced by a child's breathing. It has long been recognized that blocked or obstructed airways at the nose or throat will make a person tilt their head back to increase the size of the airway and ease breathing.[16] If this head-tilting response becomes habitual the person develops the fixed postural abnormality called forward head posture. This head posture is associated with changes in the whole spine and upper shoulder girdle and results in back pain, headaches and temporal-mandibular joint disorder (TMJD).[17]

Breathing patterns in a child with airway obstruction tend to be upper thoracic dominant and inefficient due to poor co-ordination between the diaphragm and abdominals and overuse of accessory muscles of breathing. In the long term this can have adverse affects on the motor control mechanisms needed to ensure spinal stability and prevent back pain.[18,19]

EFFECTS OF MOUTH BREATHING ON ORAL HEALTH, INFECTION AND AIRWAY FUNCTION

The nose normally acts as a filter and participates in the immune response against viruses, bacteria and fungi. Chemical substances produced in the nose, such as nitric oxide and lysozyme, break down pathogens such as bacteria, viruses and fungi in the nasal and oral mucosa. Mouth breathing reduces the availability of these substances, thus compromising the child's immune defence system. A major disadvantage of mouth breathing is that the air passes into the lungs and upper airway without undergoing the purification, humidification and warming that normally occurs when it passes through the nasal route. The result of this is oral dysbiosis, increased dental caries and gum disease and increased upper respiratory infection.[20]

Oral dysbiosis or growth of abnormal bacteria in the mouth and throat is a well-known cause of increased tooth decay and gum disease and probably also contributes to ongoing enlargement of adenoids and tonsils and to ear infections. It may also contribute to abnormal gut flora. Many parents report that when their child stops mouth breathing not only do they have fewer colds and upper respiratory tract infections but also their enlarged lymph glands become smaller. Parents also report that their children have fewer ear infections, and this is supported by research showing that otitis media is aggravated by habitual mouth breathing and associated habits such as atypical swallowing patterns and chronic sniffing.[21]

Mouth breathing has also been shown to aggravate airway related conditions such as asthma and sleep

apnoea. Oral breathing causes a decrease in lung function in mild asthmatic subjects at rest and during exercise and is thought to play a role in the pathogenesis of acute asthma exacerbations.[22] Some research has shown that improving nasal breathing can reduce the severity of asthma.[23]

Nasal breathing plays a major role in the regulation of respiration in sleep. The effect of mouth breathing on the patency of the pharyngeal airway is a major contributing factor to sleep apnoea. Some researchers stress that collapse of the pharyngeal airway triggered by the switch to oral breathing is the key step in onset of sleep-disordered breathing.[24]

MOUTH BREATHING AND NITRIC OXIDE

The nose is one of the main places in the body that nitric oxide is made. The paranasal sinuses produce 60% of the body's nitric oxide. This particular substance is involved in over 2000 reactions in the body. Decreased levels of nitric oxide in the nose and systemically have wide ranging consequences on functions such as oxygen transport, nerve conduction, immunity, function of the bronchi and blood vessels, and even memory and learning.[25]

Unless a child is very much obstructed, breathing through their mouth can result in lower levels of oxygen than nasal breathing even though nasal breathing results in the intake of a lower volume of air. Research has shown that nasal breathing can provide up to 10% more oxygen than mouth breathing and this phenomenon has been shown to be due to the effects of nitric oxide produced in the paranasal sinuses.[26] In my clinic I generally measure oxygen levels in mouth breathing children to see what closing their mouth and breathing through their nose does to their O2 saturation. I've found that in a small number of children whose airways are very obstructed nasal breathing does cause a drop in oxygen. In these cases removal of enlarged tonsils and adenoids is a pre-requisite to establishing nasal breathing. However, in most other cases nasal breathing has beneficial effects on O2; otherwise, the levels stay stable even when the child initially feels discomfort and says that they feel like they are experiencing a shortage of air.

DYSFUNCTIONAL BREATHING IN CHILDREN

Mouth breathing tends to co-exist with other types of dysfunctional breathing such as breathing pattern disorders, sleep-disordered breathing, hyperventilation and hypoventilation. Children may also begin to use a "sniffing pattern" of breathing where the nostrils narrow during inhalation rather than widen and the head is slightly retracted and tipped back during the in-breath cycle. Studies undertaken by paediatricians and osteopaths working with the Russian Academy of Osteopathic Medicine in St. Petersburg indicated that according to their measures of around two thousand children around 80% had at least one of the following types of dysfunctional breathing: mouth breathing, habitual upper thoracic/vertical pattern of breathing and/or sniffing breathing pattern.[27]

In adults as well as children dysfunctional breathing has been shown to have several components in addition to poor breathing habits such as mouth breathing: a biochemical component which appears as either hyperventilation or hypoventilation, a biomechanical component which appears as a breathing pattern dysfunction, and a psychophysiological component.[28]

BREATHING PATTERN DISORDERS IN CHILDREN

Breathing pattern disorders are common in all children with the common chronic illnesses of modern times. They include thoracic breathing, excess sighing, irregular breathing, hyperinflation and speech/breathing disorders. In most cases of breathing pattern disorders the diaphragm does not function efficiently, breathing rate is increased and rhythms of breathing can be excessively irregular, with disproportion between inhalation and exhalation .

Breathing rates and rhythms and the oscillations they produce in pressure, blood flow and autonomic nervous system function are important influences on the body's ability to maintain homeostasis. These oscillations are key determinants of the ability of various body systems to communicate with each other and to co-ordinate their responses to internal and external environmental changes.[29] Chaotic breathing rhythms, habitually rapid breathing and chronic thoracic breathing tend to maintain imbalances in the autonomic nervous system and compromise the body's ability to maintain homeostasis.[30-31]

Regulation of breathing rate and rhythm through regular practice of breathing exercises has been shown to improve a large number of disease states including anxiety, depression, asthma, irritable bowel disease and hypertension.[32] Children can be taught to alter breathing patterns with child-focused techniques, and they show health improvements and improved psychological resilience from doing so.[33]

Children with asthma who develop dysfunctional upper thoracic breathing patterns can end up with poorly controlled asthma and medication overuse. Abnormal breathing patterns such as hyperventilation, mouth breathing and upper chest breathing can worsen asthma symptoms. They make a child more likely to experience disproportionate breathlessness and anxiety about their symptoms, and to lose control of breathing in ways that affect asthma control and increase medication use.

Research has shown that breathing pattern is a significant influence on the extent of breathlessness and that improved breathing patterns result in a dramatic decrease in extent of breathlessness.[34] This is an important consideration if we wish to avoid overmedicating a child with asthma. In many cases teaching a child to correct bad breathing habits and to control their breathing can be the first step in helping them manage and control their asthma symptoms.

HYPERVENTILATION AND HYPOVENTILATION IN CHILDREN

Breathing affects the body's ability to take up oxygen and regulate carbon dioxide levels. It also affects the body's acidity and alkalinity. Levels of O2 and CO2 and pH affect a child's respiratory and immune health, their behavior and the development and the function of their brain and nervous system.

Children with obstructed airways and breathing dysfunction can either overbreathe (which is called hyperventilation) to compensate for the obstruction or underbreathe and have insufficent oxygen and too much CO2 (called hypoventilation). Sometimes they cycle between these two states, particularly at night if they have sleep apnoea or sleep-disordered breathing.

A child who is hyperventilating does not necessarily have higher levels of oxygen. If fact it is well known that low carbon dioxide levels can actually impair O2 delivery to the brain and other organs. Chronically low levels of CO2 also affect the body's alibility to balance pH and in the long term children can end up with low bicarbonate levels and some degree of acidosis. Normalising excessive hyperventilation tendencies can make the airways less reactive and prone to spasm. This is an important consideration in children with asthma because some studies have shown lower levels of carbon dioxide in adults (children have not been studied) with asthma and allergy.[35,36]

Hyperventilation affects many systems of the body, particularly the brain and nervous system. It can aggravate anxiety states and is an important contributor to panic disorder.[37] Hyperventilation results in lower oxygen supply to the brain, and this is an important consideration for learning and cognitive development in children. One study found that hyperventilation alters responsiveness to auditory cues and verbal recall even in healthy children.[38] Higher CO2 can be protective of the brain particularly under conditions of hypoxia (low oxygen) because it helps to maintain cerebral perfusion and improves cerebral glucose utilisation and oxidative metabolism.[39]

Children with certain types of neurological diseases, including children with autism,[40] have been found to be more likely to hyperventilate.[41,42]

SLEEP-DISORDERED BREATHING IN CHILDREN

Many research studies over the last decade have shown that children (and babies) with sleep-disordered breathing, i.e. who mouth breathe during sleep, snore, or have sleep apnoea, have an increased incidence of learning and behavioural difficulties and show signs of delayed intellectual development, poor impulse control, hyperactivity and altered neural processing.[43,44] One of the most recent studies followed 11,000 British children for six years, starting when they were six months old.[45] The children whose sleep was affected by breathing problems like snoring, mouth breathing or apnoea were 40% to 100% more likely than normal breathers to develop ADHD. Children with the most severe and most persistent sleep-disordered breathing had the worst behavior and cognitive function. This research like other research before it was also able to

show that cognitive and attention-directed tasks and behavioral issues greatly improved when the airway size was improved by removal of adenoids and tonsils. In many cases children diagnosed with ADHD before the surgery no longer fit the criteria after it.

Why is this? This is thought to be due to the fact that disturbed sleep patterns and lack of oxygen prevent the brain developing as it should. Also research shows that frequent arousals at night eventually lead to imbalances in the autonomic nervous system so that the fight/flight or aroused state of the sympathetic nervous system persists in the day.[46]

Normal restorative sleep has many stages. In the deeper levels of sleep the muscles to the airway lose their normal tone. If the child's airway is already compromised because of postural and structural abnormalities, enlarged adenoids or tonsils or a chronically blocked nose their airway can become obstructed and instead of staying in the deep sleep that children's brains need for rest and proper development their nervous system becomes aroused. This can happen repeatedly and frequently at night. In severe cases this is called sleep apnoea and it affects about 3% of children. However many more children snore and have some degree of what is known as upper airways resistance syndrome.[47]

Sleep-disordered breathing also results in lowered levels of growth hormone. This affects the growth of skeletal bone, including facial bones, and affects muscles, fat and insulin levels.

BREATHING EMOTIONS AND STRESS

Many parents have reported that when a child's breathing improves or after adenoids or tonsils are removed they seem like a different child, calmer, less irritable and happier. This can be because they are getting a better oxygen supply or their carbon dioxide and pH levels have improved. It may also be partly due to direct neurological and psychophysiolgical effects of breathing. Recent research using brain scans shows that breathing sensations are processed in parts of the brain that also process emotions. Conditions such as anxiety, depression and panic disorder are as much as four times higher in people with asthma.[48] It is believed that asthma and other conditions that affect airflow influence the function of the limbic system and adjacent parts of the brain involved in emotional processing, and that breathing disturbance contributes to anxiety by activating the brain's fear network.[49]

Breathing is a major influence on mind-body interaction. It has long been known that attention to breathing can train mental focus, calm stress and promote positive emotional states. Focused attention on the breath is the foundation of most meditation, mindfulness and relaxation techniques and is a means for getting in touch with our deeper selves.

Children can also be trained to use breathing modulation for emotional self-regulation. Children with health and behaviour problems can have poor perception of body sensations. Learning to feel and modify breathing can be one of the most effective ways to help children become grounded and connected to their bodies in general. Increased sensitivity to their felt senses can help them to recognize and therefore regulate emotions.

SIGNS AND SYMPTOMS OF BREATHING DYSFUNCTION - THE OBVIOUS AND NOT SO OBVIOUS

Some signs that a child has airway obstruction and poor breathing are obvious when we are aware of what to look for. However these signs are often overlooked by parents and health practitioners, perhaps because their importance is not sufficiently appreciated. One of the most important signs that a child has obstructed airways or breathing dysfunction is mouth breathing. The more severe the obstruction the more likely we are to see classic signs such as facial pallor, dark circles under the child's eyes, constant sniffing and hyponasal speech tones. The presence of breathing pattern disorders such as exaggerated upper chest breathing, frequent sighing, unexplained breathlessness and speech/breathing disorders are sometimes also fairly easy to spot.[50]

Parents should be alerted that there may be a sleep breathing disorder if a child breathes noisily at night, snores, sleeps with their mouth open (particularly with the head thrown back), has restless sleep, wakes frequently at night, wets the bed, grinds their teeth at night, has difficulty going to sleep, night terrors or bad dreams.[51] There are now a number of centres that are equipped to perform polysomnography for children. These are recommended to confirm the severity of sleep-disordered breathing in children so parents

can make the correct decision regarding the extent and urgency of treatment.

Oxygen and carbon dioxide levels can be abnormal in children with breathing dysfunction.

WHAT CAN BE DONE TO IMPROVE A CHILD'S BREATHING

The solution to a child's breathing problems often needs to be multi-layered, combining diet, breathing exercises, dental work and sometimes medication and removal of adenoids and tonsils. Correcting gut and immune function through increasing probiotic and lactofermented foods, reducing processed foods and providing good quality nutrient-dense food diet is fundamental. As the function of the immune system improves the lymphoid tissue in the upper airways can reduce in size and breathing can subsequently also improve.

Children can be taught breathing exercises to improve their breathing. Breathing heals in many ways and working with a practitioner who understands breathing therapy can be very helpful. One technique that has become well known, particularly for teaching children to stop mouth breathing, is the Buteyko method. This method can be helpful for both asthma and mouth breathing. Buteyko practitioners sometime make the assumption that all mouth breathing or asthmatic children are hyperventilating and this is not always the case. It's best to work with a Buteyko practitioner or other breathing therapy specialist who assesses a child's breathing and treats the child according to their individual needs, and preferably takes a holistic approach, referring to other health professionals when necessary.

Some children with very large adenoids and tonsils cannot stop mouth breathing unless these are removed. While natural non-surgical means are always preferable some children with severe obstruction of their airways do need to have their adenoids and tonsils removed to make enough space for breathing. If the jaw is narrow a dentist or orthodontist can be consulted regarding widening the palate or increasing the height of the back teeth to make more room for breathing.

Breathing dysfunction leads to musculo-skeletal changes that reinforce abnormal breathing patterns and effect posture and movement patterns. Children holding tension patterns and restrictions of movement associated with breathing pattern abnormalities often respond well to manual therapy such as massage, physiotherapy and chiropractic or osteopathic treatment, particularly if breathing training is also undertaken.

Stress and emotional suffering are powerful influences on breathing and in some children these need to be addressed as part of treating the contributing factors to breathing dysfunction.

CONCLUSION

How a child breathes is a reflection of their health and the myriad factors that influence it. By observing how a child breathes we can glean important information about their current state of health and we can also make predictions about their future health and facial development. When we improve a child's breathing dysfunctions, by working directly with breathing or by addressing its causes, we remove an important obstacle to health and to the development of their facial attractiveness as teenagers and adults.

Children with a history of asthma, croup, frequent upper respiratory tract, ear infections and ADHD should have their breathing habits and their airways evaluated and corrected when possible. In cases where breathing dysfunction exists establishing proper airway function and improving breathing habits can lead to improvements in children's health, mood, attention and behaviour. Many people also are unaware that taking steps to improve a child's breathing can improve their sleep, eliminate bedwetting, decrease their need for asthma medication and reduce the incidence of colds and ear infections.

Good health is associated with a wide face, broad palate with plenty of room for all the teeth, facial symmetry and good posture. This type of face is also attractive. To help our children develop this attractive face we need to take care that their breathing habits are good and that their airways are adequate.

CASE STUDY

Many cases like Josh's exist. Josh was an irritable baby who did not sleep well. As he grew older he suffered from many colds, ear infections and croup. By the age of five Josh was diagnosed with asthma. He was a frequent mouth breather who snored at night and often

wet the bed. At school the teacher said that he was a delightful child in many ways but always fidgeting and fooling around, unable to settle down to do his work and disruptive to the rest of the class. At the age of eight Josh was still wetting the bed most nights, needing asthma medication daily and had been prescribed Ritalin for ADD. In her search for natural approaches to improve his health his mother had taken steps to mostly eliminate dairy, sugar, processed food and wheat from his diet. These had improved Josh's health but he still breathed through his mouth, wheezed if he did not take his asthma medication daily, was easily upset, distractible and frequently tired.

Josh's dentist recommended he learn to stop mouth breathing to help his facial development and because it might also help his asthma. He was referred for breathing therapy and after doing his breathing exercises daily for two weeks he was sleeping much better at night, and had gone five nights straight without wetting the bed. His need for asthma medication had reduced and his mother reported that he was much calmer and seemed happier in himself. Josh still found it hard to breathe through his nose all the time and because his tonsils were still very large he was referred to an ear, nose and throat specialist who recommended that his tonsils be removed. A year later Josh was a different child and the majority of his health problems were resolved.

BIOGRAPHY

Dr. Rosalba Courtney N.D., D.O., PhD practises in Sydney as an Osteopath, Naturopath and Breathing Therapist. She has studied a wide range of breathing therapies including the Buteyko method and these have been a large part of her practice since 1991. Her PhD was on the topic of "Dysfunctional Breathing: its parameters, measurement and clinical significance". Rosalba runs workshops for practitioners and patients. For further information see www.breathandbody.com.au or email breathandbody@optusnet.com.au

REFERENCES

1. Perrin JM, Bloom SR, Gortmaker SL. The increase of childhood chronic conditions in the United States. JAMA. 2007;297(24):2755-9.
2. Brock K, Stauth C. Healing the new childhood epidemics: autism, ADHD, asthma and allergies. New York: Ballantine Books; 2007.
3. ISAAC. Worldwide variations in the prevalence of asthma symptoms: the International Study of Asthma and Allergies in Childhood (ISAAC). European Respiratory Journal. 1998 August 1, 1998;12(2):315-35.
4. von Mutius E, Martinez FD, Fritzsch C, Nicolai T, Roell G, Thiemann HH. Prevalence of asthma and atopy in two areas of West and East Germany. American Journal of Respiratory and Critical Care Medicine. 1994 February 1, 1994;149(2):358-64.
5. Bjorksten B. Effect of intestinal microflora and the enviroment on the development of asthma and allergy. Springer Semin Immunopath. 2004;25(3-4):257-70.
6. Rook GA. The hygiene hypothesis and the increasing prevalence of chronic inflammatory disorders. Trans R Soc Trop Med Hyg. 2007;101(11):1072-4.
7. Shyu CS, Lin KH, Lin CH, Fu LS. Prevalence of attention-deficit/hyperactivity disorder in patients with pediatric allergic disorders: a nationwide, population-based study. J Microbiol Immuno Infect. 2012;45(3):237-42.
8. Mogensen N, Larsson H, Lundholm C, Almqvist C. Association between childhood asthma and ADHD symptoms in adolescence. Allergy. 2011;66(9):1224-30.
9. Yuksel H, Soqut A, Yilmaz O. Attention deficit and hyperactivity symptoms in children with asthma. J Asthma. 2008;45(7):545-7.
10. Jefferson Y. Mouth breathing: adverse effects on facial growth, health, academics, and behavior. Gen Dent. 2010;58(1):18-25.
11. Catlin G. The breath of life or mal-respiration and its effects upon the enjoyments of life of man. London: Triibner and Co; 1861.
12. Price WA. Nutrition and Physical Degeneration. 50th Anniversary Edition ed. New Canaan, Connecticut: Keats Publishing; 1945.
13. Larsen CS. Biological changes in human populations with agriculture. Ann Rev Anthropol. 1995;24:185-213.
14. Boyd KL. Darwinian dentistry: an evolutionary perspective on the etiology of malocclusion. Journal of American Orthodontic Society [serial on the Internet]. 2011 [cited 2011: Available from: www.orthodontics.com.
15. Warren DW, Hairfield WM, Dalston ET. Effect of age on nasal cross-sectional area and respiratory mode in children. Laryngoscope. 1990;100(1):89-93.
16. Solow B, Sandham A. Cranio-cervical posture: a factor in the development and function of the dentofacial structures. The European Journal of Orthodontics. 2002 October 1, 2002;24(5):447-56.
17. Gonzalez H. Foward Head Posture: Its Structural and Functional Influence on the Somatognathic System, a Conceptual Study. Rehabilitative Medicine. 1996;14(1):71-80.
18. Smith M, Russell A, Hodges P. Disorders of breathing and continence have a stronger association with back pain than obesity and physical activity. Aust J Physiotherapy. 2006;52(1):11-6.
19. Gandevia SC, Butler JE, Hodges PW, Taylor JA. Balancing acts: respiratory sensations, motor control and human posture. Clin Exp Pharmacol Physiol. 2002;29(1-2):118-21.
20. Timms DJ. Rapid Maxillary Expansion: Quintessence Publishing; 1981.
21. D'Alatri L. Alternative treatment for otitis media with effusion: eustacian tube rehabilitation. Acta Otolaryngologica Italica. 2012;32:26-30.
22. Hallani M, Wheatley JR, Amis TC. Enforced mouth breathing decreases lung function in mild asthmatics. Respirology. 2008;13(4):553-8.
23. Petruson B, Theman K. Reduced nocturnal asthma by improving nasal breathing. Acta Otolaryngol. 1996;116(3):490-2.
24. Rappai M, Collop N, Kemp S, R. d. The nose and sleep-disordered breathing: what we know and what we do not know. Chest. 2003;124(6):2309-23.

25. Lundberg JON, Weitzbergb E. Nasal nitric oxide in man. Thorax. 1999 October 1999;54:947-52.

26. Lundberg JO, Farkas-Szallasi T., Weitzberger E, Rinder J, Lidholm J, Anggaard A, et al. High Nitric oxide production in human paranasal sinuses. Nat Med. 1995 April 1995;1(4):370-3.

27. Lasovetskaya L. Interrelationship between habitual movements of breathing, swallowing, cervical spine and posture. Ozteopathy 2008 Conference; 16-19 October 2008; Maroochydore, Queensland, Australia: Australian Osteopathic Association; 2008.

28. Courtney R, Greenwood K, Cohen M. Relationships between measures of dysfunctional breathing in a population with concerns about their breathing. Journal of Bodywork and Movement Therapies. 2011;15(1):24-34.

29. Giardino ND, Lehrer P, Feldman J. The role of oscillations in self-regulation. In: McGuigan Ka, editor. Stress and Health: Harwood; 2000.

30. Grossman P. Respiratory and cardiac rhythms as windows to central and autonomic biobehavioral regulation: Selection of window frames, keeping the panes clean and viewing neural topography. Biological Psychology. 1992;34:131-61.

31. Courtney R, Cohen M, van Dixhoorn J, Greenwood K. Relationship of spontaneous breathing pattern to response to heart rate variablility biofeedback. Alternative Therapies in Health and Medicine. 2011;17(3):38-44.

32. Lehrer P, Vaschillo E, Vaschillo B. Resonant frequency biofeedback training to increase cardiac variability: rational and manual for training. Journal of Applied Psychophysiology and Biofeedback. 2000;25(3):177-90.

33. Kajander R, Peper E. Teaching diaphragmatic breathing to children. Biofeedback. 1998;26:3.

34. Courtney RC, Greenwood KM, Dixhoorn J, Anthonissen E. Medically unexplained dyspnea partly moderated by dyfunctional (thoracic dominant) breathing pattern. Journal of Asthma. 2011;48(3):259-65.

35. Laffey J. Carbon dioxide attentuates pulmonary impariment resulting from hyperventilation. Critical Care Medicine. 2003;31(11):2634-40.

36. Osbourne C. Hyperventilation and asymptomatic chronic asthma. Thorax. 2000;55:1016-22.

37. Meuret A, Rosenfield D, Hofmann S, Suvak M, Roth W. Changes in respiration mediate changes in fear of bodily sensation in panic disorder. Journal of Psychiatric Research. 2009;43(6):634-41.

38. Epstein MA, Duchowny M, Jayakar P, Resnick TJ, Alvarez LA. Altered responsiveness during hyperventilation-induced EEG slowing: a non-epileptic phenomenon in normal children. Epilepsia. 1994;35(6):1204-7.

39. Vannucci RC, Brucklacher RM, Vannucci SJ. Effect of carbon dioxide on cerebral metabolism during hypoxia-ischemia in the immature rat. Pediatric Research. 1997;42(1):24-9.

40. Galletti F, Brinciotti M, Trasatti G, Pelliccia A. Hyperventilation in the awake state in children with autistic traits. Arch Dis Child. 1989;64(6):1039-48.

41. Hon KL, Olsen H, Totapally B, Leung TF. Hyperventilation at referring hospitals is common before transport in intubated children with neurological diseases. Pediatr Emergency Care. 2005;21(10):662-6.

42. Kerr A, Julu P. Recent insights into hyperventilation from the study of Rett syndrome. Arch Dis Child. 1999;80:384-7.

43. Gottlieb DJ, Vezina RM, Chase C, Lesko SM, Heeren TC, Weese-Mayer DE. Symptoms of sleep-disordered breathing in 5-year-old children are associated with sleepiness and problems behaviors. Pediatrics. 2003;112(4):870-7.

44. Key AP, Molfese DL, O'brien L, Gozal D. Sleep-disordered breathing affects auditory processing in 5-7-year-old children: evidence from brain recordings. Dev Neuropsychol. 2009;34(5):615-28.

45. Bonuck K, Freeman K, Chervin RD, Xu L. Sleep-disordered breathing in a population based cohort: behavioural outcomes at 4 and 7 years. Pediatrics. 2012;129(4):1-9.

46. Narkiewicz K, Somers VK. The sympathetic nervous system and obstructive sleep apnea: implications for hypertension. J Hypertens. 1997;15(12 Pt 2):1613-9.

47. Kennedy D, Waters K. Investigation and treatment of upper-airway obstruction: childhood sleep disorders Med J Aust. 2005;182(8):419-23.

48. Lehrer P, Feldman J, Giardino ND, Song SH, Schmaling K. Psychological aspects of asthma. Journal of Consulting and Clinical Psychology. 2002;70(3):691-711.

49. Rosenkranz MA, Davidson RJ. Affective neural circuitry and mind-body influences in asthma. Neuroimage. 2009;47(3):972-80.

50. Balkissoon R, Kenn K. Asthma: vocal cord dysfunction (VCD) and other dysfunctional breathing disorders. Semin Respir Crit Care Med. 2012;33(6):595-605.

51. Lam MH, Zhang J, Li AM, Wing YK. A community study of sleep bruxism in Hong Kong children: association with comorbid sleep disorders and neurobehavioral consequences. Sleep Med 2011;12(7):641-5.

Practitioner Seminar Series 2013 – HAIR TISSUE MINERAL ANALYSIS

RUNNING ON EMPTY: *Burnout, stress and fatigue*

ADRENALS, THYROID AND IMPORTANT NUTRITIONAL ENDOCRINE RELATIONSHIPS

Helping the tired patient and burnt out athlete regain their mojos

Advanced Hair Tissue Mineral Analysis Seminar and Workshop.

All physiological activity affects the endocrine system and thus has an impact on nutritional requirements. Having tested hundreds of thousands of patient's hair samples for Hair Tissue Mineral Analysis (HTMA), we have found that a large number of reports show a picture of weakened adrenals and thyroid function; resulting in a 'tired/burnt-out' patient.

SEMINAR OUTLINE:

- Overview of essential nutrients
- Heavy and toxic minerals
- Important mineral ratios and metabolic typing
- Better understanding the neuro-endocrine system
- Adrenal and thyroid function
- Improving stamina and athletic performance
- Real patient HTMA case studies
- Identifying and treating burn-out, fatigue and stress in the tired patient and/or athlete

PRESENTED BY:

Zac Bobrov
Technical Director,
InterClinical Laboratories

Gary Moller DipPhEd, PGDipRehab, PGDipSportMed (Otago),Nutritional Specialist
Sports Health Practitioner and Nutritional Medicine Consultant.

SEMINAR DATES & VENUES:

Perth	19th May 2013	Ibis Styles
Brisbane	2nd June 2013	Traders Hotel
Auckland	9th June 2013	Novotel Ellerslie
Melbourne	23rd June 2013	Oaks on Collins
Adelaide	21st July 2013	Crowne Plaza
Sydney	28th July 2013	Vibe Hotel

Book Now!
Special price for group bookings

For full seminar program details and ticket prices, please contact InterClinical Laboratories or register on-line.
Phone: (02) 9693 2888 **Fax:** (02) 9693 1888 **On-line registrations:** www.interclinical.com.au/events

---

Hair Tissue Mineral Analysis

Nutrient and Toxic Element Testing

Don't play a guessing game with your health!

Are toxic or heavy metals like mercury or lead affecting your health?
Are you Calcium, Magnesium, Zinc or Iron deficient?
Which vitamin or mineral supplements, if any, would benefit you?

Why test for minerals

Minerals are essential for growth, healing, vitality and wellbeing. They provide structural support in bones and teeth, muscle contractions and enzyme functions. Minerals participate in almost every metabolic process.

What is a Hair Tissue Mineral Analysis?

Hair Tissue Mineral Analysis (HTMA) is an analytical test that measures the mineral composition of hair. It is regarded by many doctors, naturopaths and nutritional therapists as one of the most valuable screening tools.

Don't play a guessing game with your health. Ask your practitioner for a HTMA from InterClinical Laboratories; the leaders in tissue mineral analysis pathology. Or alternatively, contact InterClinical direct:

InterClinical Laboratories
The Leaders in Hair Tissue Mineral Analysis

Unit 6, 10 Bradford Street Alexandria NSW 2015
P: +61 2 9693 2888 **F:** +61 2 9693 1888 **E:** lab@interclinical.com.au
www.interclinical.com

Mind Matters: Mind-Body Intervention in Cancer Treatment

Manuela Malaguti-Boyle PhD candidate, ND

Cancer patients often suffer from a multitude of physical and mental health impairments, resulting in a compromised quality of life. This review investigates how mind-body interventions have a direct impact on the physiology of cancer patients.

One of the principles of the bio-psychological model of holistic medicine is that the prevention and/or management of disease can be individually controlled. This view is reflective of the latest genetic neurobiological and clinical evidence,[1] which shows the significant role played by the mind and how this role can be used clinically for the amelioration of chronic diseases, including cancer.

The mind can be classified in three broad and overlapping domains: the anxiety domain, the mood domain and the cognitive domain. Anxiety is about reactivity, about uncertainty and fear of the unknown, monitoring external environmental changes or internal milieu changes in order to prepare an adequate reaction. Mood is about trophicity, about energy metabolism and cellular growth, reacting to a favourable, stimulating environment by activity and expansion, or to an unfavourable, deprived environment by inactivity and retraction. Cognition is about connectivity and congruence within the organism, and with the environment.

Typically, cancer patients experience varying levels of stress, emotional strain and depression. Some of the factors that can heighten these reactions are the fear of death, interruptions of life plans, changes in body-image and self-esteem, as well as change in social roles and lifestyle. It is common to find sadness and grief among cancer sufferers.[2] One could say that the consciousness of these patients is vigilant and dictated by the 'feeling of what happens'.

In the 1970s, with the aim to of helping overcome this excruciating and commonly experienced predicament, a technique named guided imagery gained rapid popularity as a valid intervention for cancer patients. Using techniques similar to those of transcendental meditation, guided imagery has cancer patients formulate a series of images that include the destruction of their cancer cells. The focus is directed at the creation of images of natural killer cells (NK) and cytotoxic T-cells attaching themselves to cancer cells and destroying them. These techniques became widely used and culminated in the early 1980s with the publication of a series of case studies conducted by Ainslie Meares in Australia, detailing the beneficial effects of meditation and guided imagery in the regression of cancer tumours.[4] Although the results obtained by these studies were rather extraordinary (the original findings of mean survival time were almost double that of control subjects), they were not given scientific validation due to the presence of many confounding variables, including different practitioners' interests and attention as well as the expectation of positive results.[5]

It was only in the 1990s that meditation and relaxation research in oncology attracted scientific interest with the popularization of the mindfulness-based stress-reduction paradigm promoted by Jon Kabat-Zinnat at the University of Massachusetts.[6] Therapeutic images of NK lymphocytes, antibodies, receptor binding sites and phagocytosing neutrophils populated the minds of many sufferers with renewed intensity, hope and a sense of perceived control over the disease process.

The question that still intrigues researchers is whether the immune system can actually be influenced by guided imagery. Patients who routinely engage in such protocols (typically twice a day), show significant immuno-modulation activity with increased T-cell responsiveness, mitogenic stimulation of raised titres of IgM and IgG antibody production, enhanced NK cell activity and elevated interleukin 2 levels.[7]

In view of these findings, could stress management prevent the onset of disease and its recurrence? If so, what is the optimal method of mind-body intervention for patients with specific types of malignancy? With the aim of answering these and similar questions, neuroscientists at MD Anderson University, Texas, are currently conducting a large multi-site trial of mindfulness meditation versus standard symptoms management. A total of 400 patients will be followed for up to five years and data on the effects on treatment tolerance, quality of life, immune outcome and survival will be recorded.

(8) Another multi-site study of stress management for patients undergoing radiotherapy is being conducted at cancer centres in United States, led by the H. Lee Moffitt Cancer Centre in Florida.[8]

Interestingly, another study in Temple, Texas, is investigating the efficacy of hypnosis for the treatment of hot-flushes in breast cancer survivors, a common side-effect of the chemotherapeutic medication Tamoxifen. Self-hypnosis has also been investigated in a human trial at Beth Israel Medical Centre as a method for relief of pain and anxiety associated with invasive procedures in 390 uterine cancer patients.[9]

Evidence from multiple studies conducted in heterogeneous groups of cancer patients suggests that mind-body therapies can improve treatment-related symptoms such as chemotherapeutic-induced nausea and vomiting,[10] physical pain,[11] and fatigue.[12]

According to a 2012 study that has appeared in the Journal of Psycho-oncology, when aggressive anti-tumour treatments are not effective, mind-body techniques appear to be supportive as adjuvant therapy in the treatment of neuropsychiatric symptoms like mood changes and depression. Pro-inflammatory cytokines influence tumour microenvironment, promoting malignant proliferation and angiogenesis. The same inflammatory cytokines induce a low grade inflammatory condition in the brain inducing mood disorder. The inflammatory biomarkers involved in depression are PGE2, IL-1; IL-6 and IL-12, and have been found in the plasma of cancer patients in higher levels than in that of healthy controls.[4] The manner of the individual's response to the illness involves the endocrine, neuro-immune, and autonomic nervous systems and chronic activation of the hypothalamic-adrenal-pituitary axis leads to adverse physiological consequences. From glucose metabolism [13] to hippocampal damage;[14] from accumulation of abdominal fat [15] to depression,[16] persistent elevated cortisol is directly implicated in rapid growth of tumour proliferation. Abnormalities of the hypothalamic-adrenal-pituitary axis function have been shown to contribute to tumour proliferation through an increased rate of glycolysis, activation of hormone receptors and immuno-suppression.[17] For example, women with metastatic breast cancer who have a flatter diurnal cortisol pattern than normal[18] have shown a significant risk of earlier mortality.[19] Studies have shown that glucocorticoids resistance is disruptive of negative feedback and glucocorticoid control, and is directly dependent on tumour cells promoting mediators of inflammation such as NFkB, growth-promoting cytokines and angiogenesis. Furthermore, research has shown that abnormal cortisol patterns may affect expression of oncogenes such as breast cancer type 1 susceptibility protein (BRCA 1) and retard apoptosis of malignantly transformed cells.[20]

Cytokine and endocrine interactions have also been found to be closely related to the onset of depression and adverse cancer outcomes. For example, adrenaline produced in the adrenal medulla and released in the early stress response triggers release of the vascular endothelial growth factor by stimulating the growth of blood vessels. Interestingly, research studies on breast cancer patients who were administered with beta-blockers have shown longer disease-free and overall survival periods.[21]

There is overwhelming data pointing to the important role of mind-body therapies in integrative oncology aimed at decreasing symptoms of depression. Increasingly, clinicians treating cancer patients consider the use of hypnotherapy, imagery/relaxation or music therapy with either curative or palliative intent to help improve symptoms of depression, pain, discomfort and anxiety. Psychotherapy is helpful in dealing with symptoms of depression and anxiety while improving individual coping skills. Interventions such as yoga and meditation have proven to be helpful in the amelioration of vitality and personal growth.[21]

With such a large variety of mind-body techniques available to cancer patients, clinicians are recommended to propose appropriate individualised options to their patients. For example, at the time of initial diagnosis, when the individual needs information and when stress levels are heightened, relaxation techniques can become a useful intervention. During active treatment, cognitive behavioural therapies and guided imagery focused on active coping strategies can be extremely helpful techniques. After active treatment and during the recovery phase, meditation and yoga are helpful for regaining strength and re-establishing life priorities.[22] Clearly, the above choices need to be guided by the patient's personality, belief and limitations.

CONCLUSION

With the increasing success of cancer treatment and the ability to return to previous family, social, and work activities, symptom management and quality of life are an essential part of survivorship. It is proposed that meditation and mind-body relaxation technique may help to improve cancer-related cognitive dysfunction, and could be considered as an adjuvant to cancer treatment.

REFERENCES

1. A.B. Niculescu. Genomic studies of mood disorders—the brain as a muscle? Genome Biology, 6 ,2005, 215.
2. Fernández-Lao C. Attitudes towards massage modify effects of manual therapy in breast cancer survivors: A randomised clinical trial with crossover design. European Journal of Cancer Care, 2012, 21(2).
2. A. Flaa, O. Ekeberg, S.E. Kjeldsen, M. Rostrup. Personality may influence reactivity to stress. Biopsychosoc Med, 1,2007, 5
3. H. Le-Niculescu, S.M. Kurian, N. Yehyawi, C. Dike, S.D. Patel, H.J. Edenberg, M.T. Tsuang, D.R. Salomon, J.I. Nurnberger Jr., A.B. Niculescu Identifying blood biomarkers for mood disorders using convergent functional genomics. Molecular Psychiatry, 14 ,2009 156–174
4. Meares A., regression of recurrent carcinoma of the breast at mastectomy site associated with intensive meditation. Aust fam Physician 1981; 10:218-19
5. Kabat-Zinn J., Full catastrophe Living: using the Wisdom of your Body and Mind to face Stress, pain and Illness. New York: Delacourt, 1990
6. Burish TJ., Jankins RA., Effectiveness of Biofeedback and relaxation training in reducing the side-effects of cancer chemotherapy. Health Psychol. 1992; 11:17-23.
7. Burish TJ., Lyles JN., Effectiveness of relaxation training in reducing adverse reactions to cancer chemotherapy. J Behav. Med. 1981; 4:65-78
8. Morrow GR.; Morrell C., Behavioral treatment for the anticipatory nausea and vomiting induced by cancer chemotherapy. N. England J. Med. 1982. 307: 14876-80
9. Sirjala KL., Cummings C., Donaldson GW., Hypnosis or cognitive behaviour for the reduction of pain and nausea during cancer treatment: a controlled clinical trial. Pain 1992. 48: 137-146
10. Sapolsky RM, Donnelly TM. Vulnerability to stress-induced tumor growth increases with age in rats: role of glucocorticoids. Endocrinology 1985;117:662–666.
11. Sapolsky R, Krey L, McEwen BS. Prolonged glucocorticoidexposure reduces hippocampal neuron number: implication for aging. J Neurosci 1985;5:1222–1227.
12. Jayo JM, Shively CA, Kaplan JR, et al. Effects of exercise and stress on body fat distribution in male cynomolgus monkeys. Int J Obes Relat Metab Disord 1993;17:597–604.
13. Epel E,McEwen B, Seeman T, et al. Psychological stress and lack of cortisol habituation among women with abdominal fat distribution. Psychosom Med 1999;61:107.
14. Ben-Eliyahu S, Yirmiya R, Liebeskind JC, et al. Stress increases metastatic spread of a mammary tumor in rats:evidence for mediation by the immune system. Brain Behav Immun 1991;5:193–205.
15. Spiegel D. Psychological distress and disease course for women with breast cancer: one answer, many questions. JNatl Cancer Inst 1996;88:629–631.
16. Spiegel D. Healing words: emotional expression and disease outcome. JAMA 1999;281:1328–1329.
17. Abercrombie HC, Giese-Davis J, Sephton S, et al. Flattened cortisol rhythms in metastatic breast cancer patients. Psychoneuroendocrinology 2004;29:1082–1092.
18. Sephton SE, Sapolsky RM, Kraemer HC, et al. Diurnal cortisol rhythm as a predictor of breast cancer survival. J Natl Cancer Inst 2000;92:994–1000.
19. Antonova L, Mueller CR. Hydrocortisone down-regulates the tumor suppressor gene BRCA1 in mammary cells: a possible molecular link between stress and breast cancer. Genes Chromosomes Cancer 2008;47:341–352.
20. Barron TI, Connolly RM, Sharp L, et al. Beta blockers and breast cancer mortality: a population- based study. J Clin Oncol 2011;29:2635–2644.
21. Melhem-Bertrandt A, Chavez-Macgregor M, Lei X, et al. Beta-blocker use is associated with improved relapse-free survival in patients with triple-negative breast cancer. J Clin Oncol 2011;29:2645–2652.
22. Powe DG, Voss MJ, Zanker KS, et al. Beta-blocker drug therapy reduces secondary cancer formation in breast cancer and improves cancer specific survival. Oncotarget 2010;1:628–638.

Metagenics
Genetic Potential Through Nutrition

2013

bestpractice

How to Run a Successful Natural Medicine Clinic.

APRIL TO MAY 2013

"An essential seminar for every Practitioner to build a profitable and effective practice" Naturopath, Sydney

WHY YOU NEED TO ATTEND THIS EVENT.

At Metagenics Best Practice you will learn:

- How to set up systems in your clinic for optimal organisation and success.
- How to set up and run success-focussed appointments that get great results, encourage compliance and keep your patients coming back.
- Tools and techniques that Metagenics offers that will support you in improving the way you practice; effectively helping you to have the Best Practice.
- How to use the tips and ideas in this event as a springboard to launch your own success!

venues & dates

Brisbane	Monday 22nd April	Pullman Brisbane King George Square (formerly Sebel)	Cnr Ann & Roma Streets, Brisbane
Adelaide	Monday 29th April	Hilton Adelaide	233 Victoria Square, Adelaide
Melbourne	Tuesday 7th May	Hilton on the Park Melbourne	192 Wellington Parade, Melbourne
Perth	Tuesday 14th May	Rydges Perth	815 Hay Street, Perth
Sydney	Wednesday 22nd May	Dockside Cockle Bay	Balcony Level, Cockle Bay Wharf, Sydney

your presenters

Angela Carroll
AdvDipHSc(Nat), AdvDipHSc(Acu), DipHM, NCFM, AdvDipBus

Erica Smith
BSc(CompMed), AdvDipNat, AdvDipHerbMed

Dr Damian Kristof
BChiro, ND

Graeme Joiner
Director of Sales and Marketing - Health World Limited

ALL EVENT TIMES

Registration:	9:00 to 9:30 am
Start Time:	9:30 am
Morning Break:	11:00 to 11:20 am
Lunch Break:	1:00 to 2:00 pm
Conclusion:	4:15 pm

YOUR INVESTMENT:

Your investment: $99.00 incl. GST

There's an event venue near you!

Call Customer Service now on 1800 777 648 to reserve your place today.

The Bowen Technique – Mechanisms for Action

John Wilks MA RCST BTAA FRSA, Senior instructor with Bowtech, the Bowen Therapy Academy of Australia.
Web: www.bowentraining.com.au Email: cyma@btinternet.com

ABSTRACT

The efficacy of the Bowen Technique can be explained by its action on a variety of structures in the body. Bowen moves stimulate several types of intrafascial mechanoreceptors that affect muscle tonus and increase vagal tone. The type of move used in Bowen also assists the hydration of fascia, which in turn encourages better vascular and nerve supply.

THE BOWEN TECHNIQUE

The technique developed by Thomas A. Bowen (1916-1982) is unusual in that it affects tissues in a variety of ways simultaneously. Its effect is not limited to relaxing tight muscles or increasing hydration in the fascia but it can also be used to increase tonus in the core muscles and contractile strength within the fascia and to initiate a lowering of sympathetic tone in the autonomic nervous system.

To understand how the Bowen Technique works it is useful to examine the varied role of connective tissue, and particularly fascia, in the body. For example, one of fascia's crucial functions in efficient locomotion is its property of recoil, which depends on good hydration (an important effect of Bowen work). This can be seen clearly in the thoraco-lumbar aponeurosis, which is the starting point for a lot of Bowen work. In walking and running, this area of fascia acts as a kind of 'bungee' and greatly reduces the amount of effort that is needed to exert via the muscular system. This is demonstrated in the movement of animals such as kangaroos, lemurs and gazelles as well as humans.[1] Where this recoil property is compromised through a lack of hydration and reciprocal tension in the fascia, certain movements like running and walking require more exertion through the muscular system. Change in the quality of the lumbar aponeurosis is also considered an important factor in lower back pain as this area is highly innervated with sensory receptors. In fact, fascia is the most richly innervated tissue in the body, being effectively its largest sense organ, with the highest density of proprioreceptors[2] as well as being the key tissue addressed in Bowen treatments.[3]

The Bowen Technique has a very specific effect on fascia. Primarily, Bowen moves are made directly on muscles (although some moves are also performed on tendons, ligaments, joints and nerves), but because all these structures are surrounded by a network of fascia, it is inevitable that whatever structure is activated, the fascia that surrounds it (and is integral to it), is affected at the same time, albeit with slightly different physiological effects.

Apart from the sensory receptors in the skin such as Merkel's Discs, Meissner's corpuscles and Free Nerve Endings, there are key intra-fascial mechanoreceptors that are activated during a treatment. These are largely Golgi, Ruffini and Interstitial receptors. Occasionally, Bowen moves involve a fast release of pressure, which affects the Pacini receptors (involved in proprioception), but these types of move are rare. Mostly, Bowen moves involve taking skin slack, applying a challenge (or gentle push) for a few seconds, and a slow steady move over the structure being addressed. Bowen moves mostly consist of a type described by Schleip[2] as 'slow melting pressure'. These types of move strongly affect the numerous Ruffini receptors,which are found in the skin and in many deep tissues of the body including the lumbar fascia, dural membranes, ligaments and joint capsules etc. Slow moves over these structures have a lowering effect on the sympathetic nervous system (SNS)[4] and induce a profound sense of relaxation in the client. Other receptors that induce a decrease in the SNS and corresponding increase in vagal tone, are the interstitial receptors, which are found nearly everywhere in the body. Some of these receptors (particularly the nociceptors) are high-threshold, and known to be involved in chronic conditions, but interestingly about 50% of these receptors are low-threshold fibres and are sensitive to the kind of very light touch (similar to skin brushing) that is used in some Bowen moves. This mechanism explains the deep relaxing effect of Bowen treatments and the crucial healing effect of increased vagal tone.[5]

On a more structural level Bowen moves affect the Golgi receptors (found in myo-tendinous junctions,

ligaments and the deep fascia) by using slightly more pressure and longer holding times, and by working close to origins and insertions. It has been suggested that manipulation of these receptors causes the firing of alpha motor neurons resulting in a softening of related tissues. This process also seems to happen via gentle stretching of the tissues such as in yoga.[4]

Muscles themselves are stimulated by the 'challenge' in a Bowen move, which activates the muscle spindles in response to the stretch on the muscle fibres. Much of this response is mediated at the level of the spinal cord but some impulses do make their way to various areas of the brain like the cerebellum, the basal ganglia, the reticular formation and the brain stem, before being co-ordinated in the thalamus and sent back down the various motor nerve tracts to the muscles or organs.[3]

It takes around 90 seconds for muscles to respond in this way, so it is interesting that it is normal practice for Bowen therapists to leave a two minute break (and sometimes longer) between the various activations or moves. It would appear that by inputting targeted, but minimal sensory stimulus during a Bowen session without extraneous interference, it allows the body to re-calibrate. For example Dietz et al[6] have shown that the CNS can reset Golgi tendon receptors and related reflex arcs so that they function as delicate antigravity receptors.[4] One thing students of the Bowen Technique are taught is always to get clients up at the end of a treatment so that both feet land on the ground at the same time, thereby stimulating a response in the many Golgi receptors in the plantar fascia of the feet.

Certain factors are important for a successful Bowen treatment, critically that there is not excessive stimulation of the CNS by an unnecessary number of moves or distracting the client. This is particularly important when there is a general sensitization of nerve pathways and tissues as is the case in chronic pain, which is why a favorite Bowen maxim is 'less is more'. Bowen also affects the fascia directly through encouraging hydration, as this process is assisted by gentle stretching, repetitive squeezing and release with pauses, (ie pressure applied and then waiting) – all elements of a Bowen treatment. The waiting time would appear to be essential as there is a significant increase in hydration after half an hour.[7]

CONTRACTILE PROPERTIES OF CONNECTIVE TISSUE

When looking at possible mechanisms for how the Bowen Technique works, it is important to differentiate how touch and manipulation affect muscle contraction (or lack of tonus) as opposed to connective tissue contracture (or in the case of some hyper-mobile clients, a potential lack of contractile properties in the tissues). Muscle contraction is a high-energy shortening of tissues, whereas contracture of connective tissue is a 'slow, (semi) permanent, low-energy, shortening process, which involves matrix-dispersed cells and is dominated by extracellular events such as matrix remodeling.'[8]

For efficient functioning of the human system connective tissues need to hold certain contractive patterns to maintain stability. In dissection you can see clearly that all connective tissues are under stress – for example dissected nerves and blood vessels have a length of around 25 – 30% less than their in situ length.[8]

Myofibroblasts play an essential role in maintaining reciprocal tension networks in the connective tissues, being a type of fibroblast, the 'building block' cell of fascia, which have the characteristics of smooth muscle. The constructive tension within the connective tissue is an essential element of the body's biotensegrity system[9]. Myofibroblasts are affected in many kinds of connective tissue disorders such as Dupuytrens and frozen shoulder. Bowen affects Myofibroblasts directly as they contract and expand slowly in response to factors such as pH and stress.[2] This occurs over a period of minutes or hours and so expansion or relaxation of myofibroblast activity will certainly occur during the length of a Bowen treatment (normally around 45 minutes) as the person relaxes. Soft-tissue techniques such as the Bowen Technique rely on effecting structural change by directly influencing the biotensegrity aspect of the connective tissue via their action on myofibroblasts, which is partly why Bowen has such a powerful and measurable effect on posture.

There is a number of different techniques available to the Bowen therapist that will be used depending on what outcomes are necessary for a given client in a given situation. For example, moves can be done faster or slower, with longer or shorter challenges, deeper of lighter pressure, medially or laterally, or anteriorly or posteriorly. All these factors will have different effects

in terms of lowering vagal tone, increase or decrease in muscle tonus etc.

Assessment has been, and always will be, an essential and highly individual starting point for determining how to apply the Bowen Technique with each client. For example, for each client presenting with similar symptoms of lower back pain there may be a great number of different reasons for those symptoms. A Bowen treatment will therefore never be the same from client to client even though they may present with identical symptoms. The following wise statement from the ancient Chinese poet Lin Yutang should be the mantra of all holistic therapists:

'A doctor who prescribes an identical treatment in two individuals and expects an identical development, may be properly classified as a social menace.'

Working with clients in chronic pain is a challenge for any therapist. Prolonged inflammation has been shown to have a deleterious effect on many structures and mechanisms in the body and may derive from a variety of causes, such as old injuries, operations, and inflammatory conditions like endometriosis. It is well known, for example, that inflammation in the gums (gingivitis) or in the jaw after root canal fillings can affect organs such as the heart and cause joint and muscle pain. Frequently the original site of the inflammation is asymptomatic but will have effects elsewhere in the body and is a key factor in chronic pain. Gentle therapeutic approaches such as Bowen that directly affect the myo-fascial system by gently stimulating the interstitial receptors and lowering their tendency for hypersensitivity would appear to be the most obvious choice for clients in chronic pain.

There is considerable interest amongst manual therapists in the concept of fascia as a communication medium in the body.[10] It has been known for many years that piezoelectric effects initiated by stressing collagen fibres have a strong healing effect on tissues.[11] There is no doubt that something of this kind is occurring during a Bowen treatment as the impulses created by stressing collagen fibres in the challenge and roll of a Bowen move can be felt clearly with sensitive palpation. These impulses seem to have the effect on the tissues of freeing areas of fascia that are 'stuck', or what Deane Juhan[12] refers to as thixotrophic. Scar tissue that is raised and red responds to Bowen moves by becoming visibly less fibrotic and less inflamed quite quickly. This means that there is some profound physiological change in the tissues, specifically in the ratio of type I and type III collagen. This is significant as this ratio is a crucial element in the make-up of fascia in terms of laxity.

The exquisite images in the DVD's produced by Dr J-C Guimberteau[13] show clearly why techniques that encourage more fluidity in the fascia, such as Bowen, would have a profound effect on vascular and nerve supply by freeing up the connective tissues that surround capillaries, veins, arteries and nerves.

The effectiveness of the Bowen Technique in its treatment of a wide range of conditions is borne out by clinical experience, and although more research needs to be done in this area it is clear that there are well-researched mechanisms by which the Bowen Technique can assist in terms of fascial fitness, reducing stress levels, increasing vascular supply and improving mobility and posture.[14]

REFERENCES:

1. Kram, R., Dawson, T.J. Energetics and Biomechanics of locomotion of Red Kangaroos, Comp. Biochem. Physiol.B 1998
2. Schleip, R., Fascia as a Sensory Organ, World Massage Conference Webinar, Nov 2009
3. Wilks, J., The Bowen Technique, the inside story CYMA Ltd 2007
4. Schleip, R Fascial plasticity – a new neurobiological explanation. Journal of Bodywork and Movement Therapies, 2003, 7(1):11-19 and 7(2):104-116
5. Gellhorn, E., Principles of Autonomic-Somatic Integrations, University of Minnesota Press 1967
6. Dietz, V., Regulation of Bipedal Stance Experimental Brain Research 1992 Vol 89 (1) pp 229 – 231
7. Schleip, R. & Klingler, W., Fascial Strain Hardening Correlates with Matrix Hydration Changes Fascia Research, 2007 Elsevier p 51
8. Tomasek, J et al. Myofibroblasts and Mechano-regulation of Connective Tissue Remodelling Nature Reviews 3 (May 2002) pp349 – 363
9. Levin, S & Martin, D-C, Biotensegrity. The Mechanics of Fascia. The Tensional Network of the Human Body Churchill Livingstone, Elsevier 2012 (pp 137 - 142)
10. Oschmann, J Fascia as a body-wide communication system The Tensional Network of the Human Body Churchill Livingstone, Elsevier 2012 (pp 103 – 109)
11. Becker, R., The Body Electric Harper 1985
12. Juhan, D, Job's Body – a Handbook for Bodywork Station Hill Press, NY 2002
13. Guimberteau, J-C., Muscle Attitudes DVD, EndoVivo productions 2010
14. Wilks, J., Understanding the Bowen Technique, First Stone Publishing 2004

Add Bowen Therapy to your Tool Box!

With Bowen Training Australia
Australia's Premier Training Group

Bowen Training Australia offers a unique opportunity to learn Bowtech™, the original Bowen Technique, and join an international network of practitioners.

- Effective
- Efficient
- State of the Art
- New Skillset
- Practitioner Friendly
- Gentle and wholistic
- Non Invasive
- Remedial Soft Tissue Therapy

BOWTECH®
The Original Bowen Technique

Bowen Training Australia

For more info visit **www.bowentraining.com.au**

The Mind-Body Nexus

Honor Tremain Nutritionist, Health writer

Do you remember the movie *Patch Adams* which starred Robin Williams? It was about a US doctor who overcame many obstacles to study medicine as a mature age student. He almost failed to graduate after struggling with the arrogant and cold manner of the doctors who taught him and who treated their patients in the same way. Regarded as crazy by his peers and mentors, he broke through this perception when people began to see that his revolutionary ideas on health and healing possessed the signal merit of therapeutic efficacy.

This is the true story of Dr Hunter Patch Adams[1], who is one of the first medical practitioners in the world to see that there is a strong connection between how the body and the mind can affect each other, and how the use of humour and love can positively influence an immune system to fight off an illness, for example in treating cancer, where children particularly are very responsive to this approach. This is where the concept of the clown doctor was born. Dr Adams calls clowning a trick for bringing love close. Although best known for his work as both a medical doctor and a clown, he is also a social activist who has given forty years to bringing about reform of the USA's health care system. He believes that laughter, joy and creativity play integral roles in the healing process.

The inverse interpretation of the relationship between mind and body is explored by Professor Amy Cuddy[2] of the Harvard Business School, who says that it's actually our body that shapes our mind, that how we hold or use our body can actually chemically affect how we feel about ourselves, and even how others gauge and respond to us, by triggering the release of either testosterone - making us feel strong, calm and confident - or cortisol, the stress hormone, which makes us feel anxious, shy and easily intimidated.

Cuddy found that by simply standing or sitting in a 'power pose' for two minutes a day we can change how we feel, how others perceive us and even how our life turns out. An example of a 'power pose' is standing with legs slightly apart and with hands on hips, which has been called the Wonder Woman or Superman pose.

Petrea King[3], well known author, naturopath, herbalist, hypnotherapist, meditation and yoga teacher and CEO of the Quest for Life Foundation in Australia, is a strong believer in the mind-body connection. In 1983 she was diagnosed with acute myeloid leukaemia and was not expected to survive. But through the use of meditation and counselling and a holistic approach to her health and illness, she says she found healing and recovered from her condition. The reasoning underpinning meditation's power to heal the body is that in this stress-free state of nothingness we let go of such superficial identities as social or occupational status, and become simply a 'human being', as opposed to a 'human doing'. We have the opportunity to tap in to an inner wellspring of energy, calmness and healing potential that can affect and correct the mind and body. Petrea King and her team have treated over 90,000 people and counting, teaching them how to take charge of their lives, their body and their response to the challenges, illnesses, grief, depression or difficulties they live with.

38

So is it the body affecting the mind or the other way round? Or perhaps neuropsychobiological processes are too complex to admit of a clear-cut commitment to either interpretation. The least that can be said is that there is a large body of clinical and experimental evidence for the health and healing relationship between body and mind.

Both Patch Adams and Petrea King will be among the many guest speakers at the May 2013 ATMS Summit, Quality of Life, Healthy Ageing Naturally. To make bookings or enquiries follow http://www.atmssummit.com.au/content/

REFERENCES

1. Adams P & Gesundheit! Institute [Internet]. Available from http://www.patchadams.org/
2. Cuddy A.,Your body language shapes who you are, TED talks, Harvard Business school [Internet]. Available from http://www.ted.com/talks/amy_cuddy_your_body_language_shapes_who_you_are.html
3. Patrea King, founder of Quest for Life foundation [Internet]. Available from http://www.questforlife.com.au/founder

THE 2ND INTERNATIONAL

Natural Medicine Summit

SYDNEY

3RD, 4TH & 5TH MAY 2013

To be held at Rosehill Gardens, Rosehill Racecourse for all Natural Medicine Practitioners and Students

PATCH ADAMS PUBLIC ONE DAY WORKSHOP

Friday 3rd May 2013 in Sydney

"Living a Life of Joy"

Dr Patch Adams is a medical practitioner, clown and social activist who believes that laughter, joy and creativity are integral to our health and healing.

Be Inspired! Embrace a joyful view of life!

For bookings go to **www.atmssummit.com.au/registration**

BLACKMORES PROFESSIONAL The Practitioner Range

nature & health

Swisse

THE HERBAL EXTRACT

ENDEAVOUR COLLEGE OF NATURAL HEALTH

FOR MORE INFORMATION, PLEASE CONTACT

ATMS

Australian Traditional Medicine Society Ltd

P. 1800 456 855
info@atms.com.au
www.atms.com.au

The 2nd International Natural Medicine Summit

Liz Coggins, Summit Event Manager

I would like to introduce you to the event that ATMS has organised to build and consolidate your knowledge, and to reward you as a member of the complementary health profession. Please join us!

The multi-modality structure of ATMS is fully reflected in the program, with presentations exploring and discussing the pathways to healthy ageing from a variety of perspectives.

The introductory keynotes from Patch Adams and Peter Spitzer on Saturday indicate our goal to incorporate the benefits of humour, laughter, human generosity and kindness for a healthy body. This introduction also indicates the network of friendship across our wonderful list of presenters. During the weekend we will hear from medical, naturopathic, nutritional and herbal practitioners, academics, psychotherapists and specialized bodywork practitioners.

The Summit opens on Friday, 3 May, with three separate full-day workshops. Joe Muscolino is renowned in Australia and internationally. He is a licensed chiropractor working in the United States, teaching specialized bodywork and palpation techniques, as well as anatomy, physiology and nutrition. Members who may not have read his books will still be familiar with the clarity and rigour of his work through his contributions to the society's journal. In his Friday workshop Joe will explore the topic of muscle palpation and its importance as an assessment tool when performing clinical, orthopedic, and remedial massage.

An alternative choice on Friday is "The Role of Nutrition and Physical Activity in the Prevention of Chronic Disease", presented by Kira Sutherland and Raymond Smith. Both these clinicians are popular and highly qualified in their subject, and together they will discuss how nutrition, physical activity and exercise improves overall health, and contributes to treating and preventing chronic disease at all ages.

The third choice on Friday is a day with Patch Adams – "Living a Life of Joy!" Dr Adams is known around the world for his deep compassion over all suffering. He is committed to bringing about change, both individually and socially, through kindness and happiness, and he is unswervingly dedicated to opportunities for joy, fun and good health.

Saturday is a banquet of colourful variety. Dr Peter Spitzer, a founding member of Clown Doctors, will pick up Patch's theme when he talks to us about Acquired Amusement Deficiency Syndrome (AADS), and the role humour can play in treatment. We will make it possible for delegates to give a charitable donation, even a gold coin, to support their continued work. We take health and aging seriously, and every one of the presenters is eminently qualified in their field, but we are also looking at the lighter point of view.

On Saturday and Sunday we also have presentations from Dr Sonya Brownie and Professor Lindsay Brown. On Saturday Sonya will discuss optimizing nutritional well-being in older people and the implications for this population emerging from new dietary guidelines. On Sunday she will focus on elders' rights, looking at advance care planning, financial abuse and other issues. Lindsay Brown is a teacher and researcher in the areas of pharmacology and drug actions. On Saturday she will explore the efficacy of dietary oils in obesity. On Sunday she will offer what will surely be a lively presentation: "Wine as a Source of Nutraceuticals".

Every one of the presenters at the summit has a unique background and knowledge base, and so much to contribute. In separate sessions Dr Airdre Grant, Alison Carroll, Bill Pearson, David Stelfox, Linlee Jordan and Tania Patterson will each examine the more inward, qualitative choices available to us that contribute to healthy ageing – remember that even a 20-year-old can begin preparing for a healthy old age by the choices they make today.

Simona Cipriani, another special guest from the United States, is presenting two breakout sessions on Authentic Pilates. Her experience, like that of all our presenters, is vast. We encourage you to visit our presenters' bio's on the website: www.atmssummit.com.au

The final word must go to our Saturday Gala Dinner, which is going to be a simply terrific night, with celebrity guests, great food and fabulous live music. Take a look at our entertainment!

Jeff Lenham, Bernie Segedin and Erin Black will play softly during dinner then take us dancing!

Book now – ring 1800 456 855 or go on line at atmssummit.com.au

BIOCeuticals®
Quality NutraCeuticals

UltraBiotic Pregnancy Care

AUST L 202557

Pre- and Postnatal Probiotic Support

UltraBiotic Pregnancy Care is an innovative blend of evidence-based probiotics to support women during and after pregnancy. The first pregnancy probiotic blend in Australia, it provides support for healthy digestive, urogenital and immune systems.

UltraBiotic Pregnancy Care contains multistrain probiotics including *L. fermentum*, *L. salivarius* and *L. gasseri* which have been shown to aid in the symptomatic relief of medically diagnosed lactational mastitis when given to breastfeeding women.

Key Features and Benefits:

- ***Seven probiotic strains and 35 billion CFUs!***
- ***May assist in relieving the symptoms and clinical signs of medically diagnosed lactational mastitis.***
- ***Assists in the maintenance of healthy microflora in the urinary and reproductive tracts.***
- ***In conjunction with dietary counselling, may help to maintain normal healthy glucose levels in normoglycaemic women during and after pregnancy.***
- ***Contains L. rhamnosus, which can influence the microbiota development in infants when given to pregnant women in late pregnancy and during breastfeeding.***
- ***Has a positive effect on infants' health, including decreasing the incidence of atopic dermatitis and allergy in the first years of life.***

Market 1st pregnancy probiotic blend

Relief of lactational mastitis

Always read the label. Use only as directed.
If symptoms persist seek further health advice.

Recent Research in Homeopathy

Robert Medhurst BNat ND DHom

Homeopathy has been around for well over 200 years now. It works. Every day, day in, day out, in clinics and hospitals, homes and farms all over the world, homeopathy works. I've been using it very successfully for the best part of tthe last three decades but time after time I hear people say that it doesn't work and it can't work and there's no research that says that it does. On the contrary. There is research available that confirms that homeopathy works and its findings are published on a regular basis. Folllowing are summaries of some of the more notable research that's been done in recent times.

Coelho Moreira CO, de Fátima Ferreira Borges da Costa J, Leal MF, Ferreira de Andrade E, Rezende AP, Imbeloni AA, Pereira Carneiro Muniz JA, de Arruda Cardoso Smith M, Burbano RR, de Assumpção PP. Lymphocyte proliferation stimulated by activated Cebus apella macrophages treated with a complex homeopathic immune response modifiers. Homeopathy. 2012 Jan;101(1):74-9. In more work done to validate the effects of the homeopathic combination, Canova, researchers at Brazil's Universidade Federal do Pará investigated the in vitro effects of this product on macrophages and the subsequent effects of these upon lymphocytes. Macrophages from tufted capuchin monkeys in culture were exposed to Canova. These macrophages were then co-cultured with peripheral blood lymphocytes. The analysis of Canova effects in the cultured lymphocytes was performed according to the cell cycle phase using flow cytometry and further assessed by enzyme-linked immunosorbent assay for Interferon gamma and Interleukin-5 cytokines. On examination of the results it was shown that the use of Canova was associated with an increase in the number of proliferation lymphocytes and in the levels of interferon gamma and interleukin-5 cytokines.

Guimarães FS, Abud AP, Oliveira SM, Oliveira CC, César B, Andrade LF, Donatti L, Gabardo J, Trindade ES, Buchi DF. Stimulation of lymphocyte anti-melanoma activity by co-cultured macrophages activated by complex homeopathic medication. BMC Cancer. 2009 Aug 22;9:293. This study, carried out by a team from Brazil's Universidade Federal do Paraná, sought to determine the effects of a complex of homeopathically prepared ingredients on the in-vitro response to melanoma cells. To do this, mouse lymph node lymphocytes were co-cultured with macrophages in the presence or absence of the homeopathic complex, and B16F10 melanoma cells; a particularly aggressive melanoma cell line. When compared to controls, it was found that the lymphocyte and macrophage cultures exposed to the homeopathic complex had greater anti-melanoma activity, reducing melanoma cell density and increasing the numbers of lysed tumor cells.

Frenkel M, Mishra BM, Sen S, Yang P, Pawlus A, Vence L, Leblanc A, Cohen L, Banerji P, Banerji P. Cytotoxic effects of ultra-diluted remedies on breast cancer cells. International Journal of Oncology. 2010, 36: 395-403. This University of Texas study was done to determine the in-vitro cytotoxic effects of homeopathically potentised Carcinosin 30C, Conium 3C, Phytolacca 200C, Thuja 30C, and succussed and unsuccussed negative solvent controls on MCF-7 and MDA-MB-231 human breast adenocarcinoma cell lines in tissue culture and a normal human cell line in tissue culture. On analysis, it was shown the use of homeopathically prepared Carcinosin and Phytolacca were associated with a reduction in the viability of the adenocarcinomatous cells, an increase in the rate of cell death, a preferential loss of telomeric DNA and early apoptosis induction from and of these cells.

PLANT TRIALS

Bonfim FPG, das Dores RGR, Martins ER, Casali VWD. Germination and vigor of lettuce seeds (Lactuca sativa L.) pelleted with homeopathic preparations Alumina and Calcarea carbonica subjected to toxic levels of aluminium. Int J High Dilution Res 2010; 9(33): 138-146. Researchers from three different universities in Brazil were involved in this study that adds to previous work looking at the effects of homeopathically prepared materials on plants. Lettuce seedlings intoxicated with aluminium were exposed to homeopathically prepared Alumina 6C, Alumina 12C, Calc carb 6C, Carb 12C, or two controls. Outcomes

were assessed using germination percentage, germination speed index and radicle length. On analysis and when compared to controls a statistically significant association was found between all of the homeopathically prepared substances and germination speed index, radicle length and germination index.

Marques RM, Marques-Silva GG, Bonato CM. Effects of high dilutions of Cymbopogon winterianus Jowitt (citronella) on the germination and growth of seedlings of Sida rhombifolia. Int J High Dilution Research, 7, 22, 31-35, (2008). This research comes from the State University of Maringa, in Parana, Brazil and was performed to ascertain the effects of various homeopathically prepared potencies of citronella against Sida rhombifolia, an invasive weed endemic in Southern Brazil and many other parts of the world, including Northern Australia. Sida seedlings were exposed to 3C, 6C, 12C, 24C and 30C homeopathic potencies of citronella and a control substance, These plants were then monitored for root system growth, shoot length, total fresh mass, germination percentage and germination speed. This process was carried out 5 times and on analysis of the measurements it was found that all of the citronella potencies increased all parameters measured. Specifically, the 3C and 24C potencies had the greatest effect on root length, the 6C and 12C potencies had the greatest effect on shoot length, the 6C had the greatest effect on total biomass growth, and the 12C on germination percentage and germination speed.

Gangar H.U. Management and Control of Genetic Processes in Cotton Plants through Homoeopathy. Indian Journal of Research in Homoeopathy;Vol-1 (1); 2007. In this Indian research, the effects of homeopathically prepared solutions on a broad range of parameters, using plants as the subjects, were measured. The homeopathic solutions were used in CM (100,000C) potencies and made from differing source materials. These were then assessed for their capacity to influence growth, germination, flowering and fruiting of cotton plants, compared to inactive dilutions applied in the same manner. In all cases, the homeopathically prepared solutions had a clear and objective effect on the parameter assessed. Work was also done here which confirmed that different potencies of different homeopathic drugs have a remedy-specific electrical charge.

Rossi F, Melo PCT, Ambrosano EJ, Guiraão N, Schaminass EA. Application of homeopathic remedy Carbo vegetabilis and development of plants of Lettuce. Int J High Dilution Research, 5, 17 (2006), 23-30. A significant amount of work has been done to determine the effect effects of homeopathically prepared substances have on plants. This study sought to investigate the effect of a number of different potencies of the homeopathic product, Carbo vegetalis, on the development of seedlings of the lettuce, Lactuca sativa. Lettuce seedlings housed in an environment likely to induce stress, a shaded greenhouse and a greenhouse in full sun, were exposed to Carbo veg 6C, 12C, 30C, 100C or one of 2 control substances. An analysis of the results confirmed the action of Carbo veg in these environments, with the 100C have the most notable effect on seedlings grown in the stressed environment.

HUMAN TRIALS

Chronic primary insomnia: efficacy of homeopathic simillimum. Homeopathy. 2010 Jan;99(1):63-8. This study was done by a team from the Department of Homoeopathy at South Africa's Durban University of Technology, and was focused on determining the effects of constitutional homeopathic treatment for insomnia, when compared to a placebo control. 30 people diagnosed with primary insomnia were randomly selected to receive either prescribed homeopathic therapy for 6 weeks or a placebo "prescribed" using the same process. The subjects were assessed at each of the 3 consultations conducted through the treatment process with reference to a sleep diary and sleep impairment index. An analysis of the outcomes showed that sleep duration, sleep quality and all of the associated parameters measured improved significantly under homeopathic treatment, when compared to that using the placebo control.

Bell IR, Howerter A, Jackson N, Aickin M, Baldwin CM, Bootzin RR. Effects of homeopathic medicines on polysomnographic sleep of young adults with histories of coffee-related insomnia. Sleep Med. 2011 May;12(5):505-11. Iris Bell and colleagues from the University of Arizona College of Medicine performed this trial to determine the effects of homeopathically prepared Coffea cruda 30C or Nux vomica 30C on insomnia. 54 subjects with a history of either cynical

hostility or anxiety sensitivity (but not both) and a history of coffee-induced insomnia were given either of these two medicines (administered double blind) or a placebo (administered single blind) and monitored via polysomnography, self-assessed sleep diaries, sleep quality index scales and mood state scales, for a period of 1 month. An analysis of the results showed an association between the test substances and a significant improvement in several key areas of measurement, when compared to the control.

Goossens M, Laekeman G, Aertgeerts B, Buntinx F. Evaluation of the quality of life after individualized homeopathic treatment for seasonal allergic rhinitis. A prospective, open, non-comparative study. Homeopathy. 2009 Jan;98(1):11-6. This uncontrolled study from the Katholieke Universiteit Leuven in Belgium builds on previous in vitro and in vivo work to determine the effects of homeopathically potentised substances on seasonal allergic rhinitis (SAR), and more specifically in this case, quality of life. 46 people suffering with medically diagnosed SAR were treated by homeopathic physicians with constitutional homeopathy. The subjects completed a rhinoconjunctivitis quality of life (RQLQ) form at baseline and at three and four weeks from this point. An assessment of all of the outcomes showed a reduction in the RQLQ of 3.4 at baseline to 1.97 at 3 weeks and 1.6 at 4 weeks, indicating an improvement in quality of life as it relates to their SAR symptoms.

Glatthaar-Saalmuller B. In vitro evaluation of the antiviral effects of the homeopathic preparation Gripp-Heel on selected respiratory viruses. Can J Physiol Pharmacol. 2007 Nov;85(11):1084-90. This Austrian study was carried out at the University of Veterinary Medicine in Vienna and sought to determine the in vitro effects of a combination of homeopathically prepared substances on a panel of viruses commonly associated with human illness. The effects of the combination were compared to several positive controls (acyclovir, ribavirin and amantadine hydrochloride) and assessment of the effects was done by standard viral viability tests (plaque reduction assay, cytopathogenic assays, virus titrations, analysis of the viral proteins in virus-specific enzyme immunoassays, and haemagglutination tests). On analysis of the results a significant association was shown between the homeopathic combination and a reduction in the activity or viability of Human herpesvirus 1, Human adenovirus C serotype 5, Influenza A virus, Human respiratory syncytial virus, Human parainfluenza virus 3, Human rhinovirus B serotype 14, and Human coxsackievirus serotype A9.

Möllinger H, Schneider R, Löffel M, Walach H. A double-blind, randomized, homeopathic pathogenetic trial with healthy persons: comparing two high potencies. Forsch Komplementarmed Klass Naturheilkd. 2004 Oct;11(5):274-80. Scientists at the Sokrates Health Centre in Switzerland performed this blinded trial to determine the pathogenetic effects of 2 homeopathically prepared remedies and a placebo in an effort to determine the similarity between the pathogenetic effects seen for the remedies in this trial and the generally accepted proving symptoms for these remedies. A group of 21 healthy homeopathic medicine practitioners were randomly assigned to one of 3 groups to receive homeopathically potentised Calendula officionalis, Ferrum muriaticum or a placebo and their symptoms recorded daily. Both remedy groups exhibited more symptoms than the placebo group and the majority of the symptoms exhibited were consistent with the traditionally accepted proving symptoms for Calendula.

ANIMAL TRIALS

Marzotto M, Conforti A, Magnani P, Zanolin ME, Bellavite P. Effects of Ignatia amara in mouse behavioural models. Homeopathy. 2012 Jan;101(1):57-67. This University of Verona study adds to previous work done on anxiety in mice and in this case used various potencies of homeopathically prepared Ignatia amara in potentially stressful experimental scenarios. Groups of 8 mice were given a negative (solvent) or positive control (diazepam) substance or Ignatia 4C, 5C, 7C, 9C and 30C and subjected to 5 repetitions of the light-dark test or open-field test in a randomised and blinded manner. Mice were then assessed for their levels of anxiety and capacity for locomotion. Compared to controls a statistically significant association was seen between the Ignatia potencies (particularly the 9C potency) and a reduction in anxiety, without a significant impact on locomotion.

Neumann S, Stolt P, Braun G, Hellmann K, Reinhart E. Effectiveness of the homeopathic preparation Zeel compared with Carprofen in dogs with osteoarthritis. J Am Anim Hosp Assoc. 2011 Jan-Feb;47(1):12-20. Workers from the Institute of Veterinary Medicine in Germany's University of Goettingen carried out this study to determine what effects, if any, could be produced by a combination of homeopathically prepared materials to relieve the effects of osteoarthritis in dogs, compared the effects of Carprofen, a commonly used non-steroidal anti-inflammatory drug. 68 dogs suffering from clinically determined osteoarthritis were assigned to receive either the homeopathic combination, or Carprofen for 56 days. Assessments were made by treating veterinarians and owners at baseline, at 28 days and 56 days, of lameness, stiffness of movements, and pain on palpation. After accumulating and analysing the results it was shown that the interventions were equal in their effectiveness.

Hielm-Björkman A, Tulamo RM, Salonen H, Raekallio M. Evaluating complementary therapies for canine osteoarthritis--Part II: a homeopathic combination preparation (Zeel). Evid Based Complement Alternat Med. 2009 Dec;6(4):465-71. In an extension to previous work done in this area, researchers at Finland's University of Helsinki used a randomized, double-controlled and double-blinded clinical trial model to compare the effects of a combination of homeopathically prepared materials with that of placebo for the relief of the symptoms of osteoarthritis suffered by dogs. 44 dogs were randomly assigned to receive either the homeopathic combination or one of two control substances for 8 weeks. Regular observations made of mobility, force plate variables, chronic pain index and pain and locomotion via visual analogue scales (VASs) as well as the intake of extra non-steroidal anti-inflammatory drugs. On analysis of the results, a significant association was found between the homeopathic combination and a reduction in 4 of the 6 variables measured, and these were the variables predominantly associated with chronic orthopaedic pain.

Sunila ES, Kuttan G, Preethi KC, Kuttan R. Effect of homeopathic medicines on transplanted tumors in mice. Asian Pac J Cancer Prev. 2007 Jul-Sep;8(3):390-4. Indian researchers operating at the Amala Cancer Research Centre in Kerala State added to previous work done in this area by investigating the antitumour and antimetastatic capacity of 3 different homeopathically prepared substances on mice, when compared to controls. Mice suffering from specific tumors were exposed to the homeopathic preparations Ruta graveolens 200C, Hydrastis canadensis 200C, Hydrastis canadensis 1M, Thuja 1M and Lycopodium 1M. When compared to controls it was found that the 200C potencies were associated with an increase in the lifespan of tumour bearing mice by up to 69.4%. A strong association was also found between the use of these remedies and a reduction in solid tumour volume of up to 95.8% after 31 days of treatment. The use of Hydrastis 1M was associated with a complete disappearance of tumors in 60% of the mice and the use of Thuja 1M and Lycopodium 1M were also associated with significant reductions in metastatic activity.

Rosas-Landa V, Garcia M, Rodriguez R. Evidence for Homeopathic Vaccination? Boletin Mexicano de Homeopatia, 1997, 30, 5-10. This Mexican research describes the process and outcomes of two pilot studies done to evaluate the immunological response in rabbits to homeopathic preparations made from an oral mycobacterial antigen. In the first study, 1C to 30C homeopathic preparations of the antigen were given to rabbits in their drinking water for one month and assessed against positive and negative controls. All of the homeopathic potencies were associated with the production by the rabbits of antimycobacterial antibody. In the second trial, a tuberculin reaction was assessed after oral administration of the 30C homeopathic potency, and this compared to the reaction to the conventional inoculation. The reaction to the homeopathic potency was comparable to that caused by the conventional inoculate.

Despite the long traditions behind many ATMS accredited therapies, in many ways the concept of holistic health care is largely a 20th century notion. This is to say, prior to the twentieth century a thoroughly articulated reductionist or selective philosophy had not fully emerged, and hence neither had the need to articulate a comprehensive and holistic approach in similar terms. What we now label holistic medicine certainly existed, as it was historically speaking the global norm. With the Flexner Report of 1910 however, the medical pluralism of the 19th century came to a dramatic close and a new era of medical hegemony arose not seen since the decadent period of late Galenic medicine. Unlike Galen however, who was beyond question for a millennium and a half, the model Flexner galvanised came under serious re-evaluation in as little as half a century.

Within 60 years of the Flexner report being published two major movements had emerged to address serious flaws in the new approach. From the public sectors of the world emerged the primary health care (PHC) movement; this formalised a radical de-emphasizing of the Flexnian clinical-research model in light of the now understood social determinants of health such as education, community infrastructure and social equality. Culminating in the Alma Ata declaration of 1978, this movement was explicitly political and saw world health as a rallying point for socio-economic change. At exactly the same time a lay-public renaissance in holistic health was emerging entirely outside of state sanctioned healthcare structures. The medical traditions whose schools and associations had been closed in the wake of the Flexner Report were rediscovered by a generation of lay practitioners in an interesting renaissance of the folk tradition previously thought to be extinct in the west.

Both of these movements however, had significant limitations that are now made visible with the clarity of hindsight. The PHC movement clearly articulated the social, political and economic drivers of disease and created a coherent conceptual framework for healthcare policy writers to be guided by. In doing this the medical industry was philosophically forced to relinquish its monopoly of health care, as many of the primary determinants of health, including environmental, economic and cultural factors, were obviously beyond the reach of doctors. Despite upholding the need for a comprehensive and holistic approach to health care planning however, the PHC movement was largely silent on the actual delivery of health care services which thus continued along reductionist lines that contrasted with the otherwise holistic framework.

The holistic health care (HHC) movement on the other hand, brought medicine itself under the spotlight of public scrutiny; no facet of medical practice or philosophy was exempt and 'complimentary' and 'alternative' options were espoused for everything from acute infections to childbirth. A strong emphasis on personal responsibility was universally upheld in an attempt to address the previous appropriation of lay health care knowledge by the medical industry that Illich termed 'social iatrogenisis'. By making every health issue one of personal responsibility and empowerment however, the social and political drivers of disease were largely obfuscated, and whilst orthodox medical practice remained the sole source of criticism the existing socio- political status quo went unquestioned by much of the HHC movement.

Viewed from the present, the conclusion to the above situation is painfully apparent. The only point that remains to be made is that whilst the HHC movement has blossomed into a full scale 'wellness revolution', the PHC movement was largely scuttled and replaced in all but name by the 'selective' PHC model by most national systems. The task of integration therefore appears to have fallen to the HHC movement with a holistic approach to primary health care being the obvious goal. I would therefore like to formally request that the ATMS Journal takes a more active role in exploring the issues entailed in this discussion.

Dr Jimi Wollumbin CEO, One Health Organisation

MASSAGE AND MANUAL THERAPIES

Battaglia1 PJ, Scali F, Enix D.Co-presentation of unilateral femoral and bilateral sciatic nerve variants in one cadaver: A case report with clinical implications. Chiropractic & Manual Therapies. 2012; 20:34 doi:10.1186/2045-709X-20-34

Objective: To present a group of anatomical findings that may have clinical significance.

Design: This study is an anatomical case report of combined lumbo-pelvic peripheral nerve and muscular variants. Setting: University anatomy laboratory. Participants: One cadaveric specimen.

Methods: During routine cadaveric dissection for a graduate teaching program, unilateral femoral and bilateral sciatic nerve variants were observed in relation to the iliacus and piriformis muscle, respectively. Further dissection of both the femoral nerve and accessory slip of iliacus muscle was performed to fully expose their anatomy.

Results: Piercing of the femoral nerve by an accessory iliacus muscle combined with wide variations in sciatic nerve and piriformis muscle presentations may have clinical significance.

Conclusions: Combined femoral and sciatic nerve variants should be considered when treatment for a lumbar disc herniation is refractory to care despite positive orthopedic testing.

Lemeunier N, Leboeuf-Yde C, Gagey O. The natural course of low back pain: a systematic critical literature review. Chiropractic & Manual Therapies. 2012, 20:33 doi:10.1186/2045-709X-20-33

Background: Most patients in the secondary care sector consulting for low back pain (LBP) seem to have a more or less constant course of pain during the ensuing year. Fewer patients with LBP in the primary care sector report continual pain over a one-year period. However, not much is known about the long-term course of LBP in the general population. A systematic critical literature review was undertaken in order to study the natural course of LBP over time in the general population.

Methods: A search of articles was performed in Pubmed, Cinahl and Psychinfo using the search terms 'epidemiology'; 'low back pain' or 'back pain'; 'prospective study' or 'longitudinal study'; 'follow-up', 'natural course', 'course' or 'natural history'; 'general population' or 'working population'. Inclusion criteria were that one of the objectives was to study the course of (L)BP in the adult population, that the period of follow-up was at least 3 months, and that there were three points of observation or more. The review was undertaken by two independent reviewers using three checklists relating to description of studies, quality and outcomes. The course of LBP was established in relation to those who, at baseline, were reported not to have LBP or to have LBP. Would this course be stable, fluctuating, worsening, or improving over time? A synthesis of results in relation to common patterns was presented in a table and interpreted in a narrative form.

Results: Eight articles were included. Articles were different on time span, the number of surveys, and the

definition of LBP. In six of the seven relevant studies, for those with no LBP at baseline, relatively substantial stable subgroups of people who continued to be LBP free were identified. In six of the seven relevant studies, definite stable subgroups of continued LBP were noted and improvement (becoming pain free) was never reported to be a common finding.

Conclusion: The status of LBP in individuals of the general population appears to be relatively stable over time, perhaps particularly so for those without LBP at baseline.

YOGA AND EXERCISE THERAPY

Ruchat SM, Davenport MH, Giroux I, Hillier M, Batada A, Sopper MM, Hammond JA, Mottola M. Walking program of low or vigorous intensity during pregnancy confers an aerobic benefit. International Journal of Sports Medicine. 2012 Aug;33(8):661-6.

Background: Walking is the most popular activity during pregnancy and may confer an aerobic benefit. However, the minimum intensity threshold of a maternal walking program for an aerobic conditioning response is unknown. The purpose was to examine the effect of a walking program of a low-intensity (LI, 30% heart rate reserve, HRR) or vigorous-intensity (VI, 70%HRR) on maternal cardiorespiratory responses to a standard sub-maximal treadmill test.

Method: Normal weight pregnant women were randomized at study entry (16-20 weeks of gestation) to the LI (n=23) or VI (n=21) walking program, with nutritional control. Participants performed a steady-state treadmill exercise test at their prescribed intensity pre and post-intervention (34-36 weeks) to evaluate changes in cardiorespiratory responses. Increasing body mass due to pregnancy was similar between the groups throughout the study.

Results: From pre- to post-intervention, relative (mL kg-1 min-1) VO2 and VCO2 during steady-state submaximal treadmill exercise did not change in the LI group but decreased in the VI group (- 1.25 +/- 2.71, p=0.02 and -1.50 +/- 2.64, p=0.005, respectively). Both groups presented increases in oxygen pulse (p</=0.002).

Conclusion: Our results showed that the energy cost of walking was not affected by the increase in maternal body weight in the LI group and was decreased in the VI group, suggesting an aerobic conditioning response in both groups, although the VI group presented a greater response. All women presented similar body mass throughout the intervention and delivered healthy babies, indicating that a prenatal walking program of low or vigorous intensity, combined with healthy eating habits, is safe and beneficial to the mother and fetus.

NATUROPATHY/HERBAL MEDICINE

Noolu B, Ajumeera R, Chauhan A, Nagalla B, Manchala R, Ismail A. Murraya koenigii leaf extract inhibits proteasome activity and induces cell death in breast cancer cells. BMC Complementary and Alternative Medicine. 2013, 13:7 Provisional PDF http://www.biomedcentral.com/content/pdf/1472-6882-13-7.pdf

Background: Inhibition of the proteolytic activity of 26S proteasome, the protein-degrading machine, is now considered a novel and promising approach for cancer therapy. Interestingly, proteasome inhibitors have been demonstrated to selectively kill cancer cells and also enhance the sensitivity of tumor cells to chemotherapeutic agents. Recently, polyphenols/flavonoids have been reported to inhibit proteasome activity. Murraya koenigii Spreng, a medicinally important herb of Indian origin, has been used for centuries in the Ayurvedic system of medicine. Here we show that Murraya koenigii leaves (curry leaves), a rich source of polyphenols, inhibit the proteolytic activity of the cancer cell proteasome, and cause cell death.

Methods: Hydro-methanolic extract of curry leaves (CLE) was prepared and its total phenolic content [TPC] determined by, the Folin-Ciocalteau's method. Two human breast carcinoma cell lines: MCF-7 and MDA-MB-231 and a normal human lung fibroblast cell line, WI-38 were used for the studies. Cytotoxicity of the CLE was assessed by the MTT assay. We studied the effect of CLE on growth kinetics using colony formation assay. Growth arrest was assessed by cell

cycle analysis and apoptosis by Annexin-V binding using flow cytometry. Inhibition of the endogenous 26S proteasome was studied in intact cells and cell extracts using substrates specific to 20S proteasomal enzymes.

Results: CLE decreased cell viability and altered the growth kinetics in both the breast cancer cell lines in a dose-dependent manner. It showed a significant arrest of cells in the S phase albeit in cancer cells only. Annexin V binding data suggests that cell death was via the apoptotic pathway in both the cancer cell lines. CLE treatment significantly decreased the activity of the 26S proteasome in the cancer but not normal cells.

Conclusions: Our study suggests M. koenigii leaves to be a potent source of proteasome inhibitors that lead to cancer cell death. Therefore, identification of active component(s) from the leaf extract could lead to the development of anti-cancer agents which could be useful in the treatment of different types of cancers.

NUTRITION

Morgan KT. Nutrition, resistance training, and sarcopenia: Their role in successful aging. Topics in Clinical Nutrition 2012 Apr-Jun;27(2):114-23.

Background: Sarcopenia is an age-related syndrome associated with decline in skeletal muscle mass and function. It is a poorly understood process that may impact life of an older adult. The related physical disability, falls in older adults, and comorbidity can severely impact the quality of their life. Nutrition is considered an important contributing factor in the complex etiology of sarcopenia. Resistance training has also been proposed as a viable intervention and can have remarkable beneficial effects on the musculoskeletal system. Thus, nutrition, particularly adequate protein, and resistance training should be a critical component of programs targeted to older adults. Kuo S-M. The Interplay Between Fiber and the Intestinal Microbiome in the Inflammatory Response. Advances in Nutrition. 2013: 4:16-28

Fiber intake is critical for optimal health. This review covers the anti-inflammatory roles of fibers using results from human epidemiological observations, clinical trials, and animal studies. Fiber has body weight–related anti-inflammatory activity. With its lower energy density, a diet high in fiber has been linked to lower body weight, alleviating obesity-induced chronic inflammation evidenced by reduced amounts of inflammatory markers in human and animal studies. Body weight–unrelated anti-inflammatory activity of fiber has also been extensively studied in animal models in which the type and amount of fiber intake can be closely monitored. Fermentable fructose-, glucose-, and galactose-based fibers as well as mixed fibers have shown systemic and local intestinal anti-inflammatory activities when plasma inflammatory markers and tissue inflammation were examined. Similar anti-inflammatory activities have also been demonstrated in some human studies that controlled total fiber intake. The anti-inflammatory activities of synbiotics (probiotics plus fiber) were reviewed as well, but there was no convincing evidence indicating higher efficacy of synbiotics compared with that of fiber alone. Adverse effects have not been observed with the amount of fiber intake or supplementation used in studies, although patients with Crohn's disease may be more sensitive to inulin intake. Several possible mechanisms that may mediate the body weight–unrelated anti-inflammatory activity of fibers are discussed based on the in vitro and in vivo evidence. Fermentable fibers are known to affect the intestinal microbiome. The immunomodulatory role of the intestinal microbiome and/or microbial metabolites could contribute to the systemic and local anti-inflammatory activities of fibers.

ACUPUNCTURE AND TCM

Müller J, Pfaffl MW. Synergetic downregulation of 67 kDa laminin receptor by the green tea (Camellia sinensis) secondary plant compound epigallocatechin gallate: a new gateway in metastasis prevention? BMC Complementary and Alternative Medicine 2012, 12:258 Provisional PDF http://www.biomedcentral.com/content/pdf/1472-6882-12-258.pdf

Background: In traditional Chinese medicine, green tea is considered to have a life-prolonging effect, possibly as

a result of its rich content of antioxidant tea polyphenols, and hence has the potential to prevent cancer. This study investigated the role of the major tea secondary plant compound epigallocatechin gallate (EGCG) for its inhibitory effects on the metastasis-associated 67 kDa laminin receptor (67LR).

Methods: To clarify the impact of EGCG on siRNA-silenced expression of 67LR, we applied an adenoviral-based intestinal in vitro knockdown model, porcine IPEC-J2 cells. Quantitative real-time polymerase chain reaction was performed to analyze 67LR gene expression following treatment with physiological and pharmacological concentrations of EGCG (1.0 g/l, 0.1 g/l, 0.02 g/l and 0.002 g/l).

Results: We report co-regulation of EGCG and 67LR, which is known to be an EGCG receptor. siRNA selectively and highly significantly suppressed expression of 67LR under the impact of EGCG in a synergetic manner.

Conclusions: Our findings suggest that 67LR expression is regulated by EGCG via a negative feedback loop. The explicit occurrence of this effect in synergy with a small RNA pathway and a plant-derived drug reveals a new mode of action. Our findings may help to provide insights into the many unsolved health-promoting activities of other natural pharmaceuticals.

MIND-BODY

Kreuzer PM, Goetz M, Holl M, Schecklmann M, Landgrebe M, Staudinger S, Langguth B Mindfulness- and body-psychotherapy-based group treatment of chronic tinnitus: a randomized controlled pilot study BMC Complementary and Alternative Medicine 2012, 12:235 (28 November 2012) Provisional PDF http://www.biomedcentral.com/content/pdf/1472-6882-12-235.pdf.

Background: Tinnitus, the perception of sound in absence of an external acoustic source, impairs the quality of life in 2% of the population. Since in most cases causal treatment is not possible, the majority of therapeutic attempts aim at developing and strengthening individual coping and habituation strategies. Therapeutic interventions that incorporate training in mindfulness meditation have become increasingly popular in the treatment of stress-related disorders. Here we conducted a randomized, controlled clinical study to investigate the efficacy of a specific mindfulness- and body-psychotherapy based program in patients suffering from chronic tinnitus.

Methods: Thirty-six patients were enrolled in this pilot study. The treatment was specifically developed for tinnitus patients and is based on mindfulness and body psychotherapy. Treatment was performed as group therapy at two training weekends that were separated by an interval of 7 weeks (eleven hours/weekend) and in four further two-hour sessions (week 2, 9, 18 and 22). Patients were randomized to receive treatment either immediately or after waiting time, which served as a control condition. The primary study outcome was the change in tinnitus complaints as measured by the German Version of the Tinnitus Questionnaire (TQ).

Results: ANOVA testing for the primary outcome showed a significant interaction effect time by group ($F = 7.4$; $df = 1,33$; $p = 0.010$). Post hoc t-tests indicated an amelioration of TQ scores from baseline to week 9 in both groups (intervention group: $t = 6.2$; $df = 17$; $p < 0.001$; control group: $t = 2.5$; $df = 16$; $p = 0.023$), but the intervention group improved more than the control group. Groups differed at week 7 and 9, but not at week 24 as far as the TQ score was concerned.

Conclusions: Our results suggest that this mindfulness- and body-psychotherapy-based approach is feasible in the treatment of tinnitus and merits further evaluation in clinical studies with larger sample sizes.

Reviewed by Stephen Clarke

Essentials of Law, Ethics and Professional Issues for CAM

Zetler, J and Bonello R. Churchill Livingstone/Elsevier, Sydney 2012

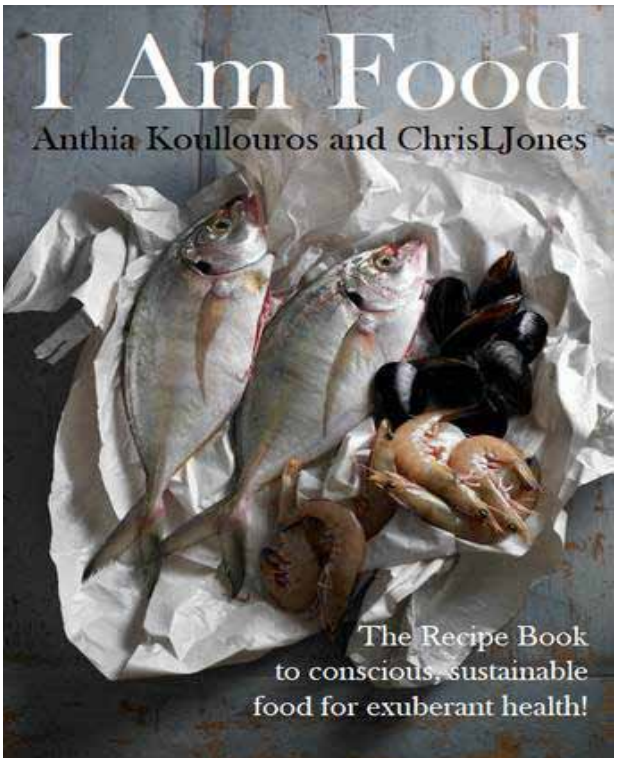
Along with the authors, who are senior academics at Macquarie University, there are eight other contributors from the fields of law, business and health to this thorough and well organised book. CAM has long been recognised as a fast-growing group of primary-contact modalities within Australian health care, yet, apart from Michael Weir's Law and Ethics in Complementary Medicine, there has not been such an exhaustive treatment of the legal, ethical and professional issues that contemporary Australian CAM therapists are called on to deal with in order to manage safe and successful practices. As the Foreword points out, given the status of CAM in the health care system, today's CAM practitioners need to be 'ethical, legally cognisant and business-savvy' as well being competent healers.

The book begins with a general overview of the Australian legal system (Chapter 1) and then discusses how it applies to the professional, ethical and business practices of health professionals, and specific CAM modalities in particular (Chapters 2 to 6). An excellent chapter focuses on the increasingly important and potentially controversial issue of research and evidence-gathering in CAM, canvassing research methods and standards of evidence, and the legal and ethical demands research in CAM involves. Further chapters deal with communication for CAM practitioners, discussing their relationships with other health professionals, government and statutory authorities and of course their patients; and the ways in which the book's issues apply to specific CAM modalities (chiropractic and osteopathy, herbal medicine and naturopathy, TCM, massage therapies, homoeopathy and integrative medicine). Information sets for all these modalities include educational requirements, the legal status of the profession, its therapeutic rationale, scope of practice, evidence base and modality-specific ethical considerations (many of which are, of course, shared ones). There are clearly set out summaries and tables throughout the book highlighting key issues and all chapters contain a comprehensive list of references: this is a very well researched work. There are an index, and tables of relevant statutes and cases in law.

Reviewed by Stephen Clarke

I Am Food

an E book by Anthia Koullouros and Chris Jones. Available at http://www.ovvioorganics.com.au/shop/anthias-ebooks



Part one: a Guidebook

This book comes in two sections: the Guidebook and the Recipe Book. The author, Anthia Koullouros, is a naturopath who has been in practice for eighteen years. The illustrations are by Chris L Jones, a specialist of long standing in food photography. Simply at a visual level the result of their collaboration is a publication of inspiring clarity, beauty and detail.

In the first chapter of the 82 page Guidebook the author sets out the foundations of her approach to food sourcing, growing and diet. She subscribes to the principles of the Palaeolithic diet – "eat what we can grow, raise, hunt and gather" – contending that humans are genetically adapted to a 'hunter-gatherer' diet that is based on fish, grass-fed and pasture-raised meats, vegetables, fruit, roots and nuts, and that excludes grains, legumes, most dairy products, refined salt, sugar and processed oils. Chapters 2 to 6 give each give ten-point guides: to sourcing good food, preparing it in the most nutrient-friendly ways, and avoiding unhealthy chemicals, foods and food-preparation methods. Chapters 7, 8 and 9 provide a comprehensive focus on the foods, and particularly treatment and sourcing methods, that do and do not qualify for inclusion in the diets of readers actively conscious of the role of food in maintaining health.

There are links throughout the Guidebook to further information and research, adding to the author's own store of knowledge and making the book a most comprehensive resource. Sustainability, natural ingredients and slow preparation methods are consistent themes. There are a table of weekly food suggestions, including meal menus and appropriate daily and weekly amounts to be eaten, and an outline of the author's own shopping list. Readers who want to know about this approach to diet, which is gaining wide acceptance for both its health and environmental benefits, should find Anthia's work of great value.

Part two: the Recipes

Naturally the recipes are firmly based on the principles set out in the Guidebook. There are eleven chapters, Chapter One being an inroduction in which Anthia continues the theme of the benefits of the palaeolithic diet and of avoiding grazing. Chapter 11 is a comprehensive listing of references and a conclusion. The structure of the recipe chapters transcends the simplified ingredients/directions formula of conventional cookbooks. Reading these chapters is more like paying a richly discursive visit to Anthia's kitchen and pantry, where you learn both how to prepare dishes for the main meals of the day and where they fit into the big nutritional picture. As in the Guidebook there are many valuable links.

This is a most satisfying venture from both angles: nutritional wisdom and delicious food are truly integrated. The presentation is gorgeous, maximizing the visual and research possibilities of internet publication.

State News

NEWS FROM VICTORIA

Patricia Oakley

Greetings from Victoria to all our A.T.M.S. members. I trust you all enjoyed a peaceful Christmas and restful holiday period. Sincere condolences to those affected by bushfires and floods. Heartbreaking as they are, they seem to be an inescapable part of our world; it's hardly surprising that the ancients had their many gods to be worshipped and appeased in the hope of kindness and protection from Mother Nature, as she is indeed a force to be reckoned with.

2013 finds our directors and board members very busy with national regulation and health fund issues as a continued service for our members, and I'm sure we are proud and very grateful to be part of such a diligent organisation.

We are starting the year with a the presentation of a webinar series entitled "How to have a healthy and profitable business in the world of Natural Medicine" by our National President Sandi Rogers, beginning on Wednesday 20th February 2013 and continuing Wednesdays March 6th and 27th . A webinar can be enjoyed in the comfort of one's own home without a battle through traffic to attend or the worry of a babysitter for those with young children. They are essential and very well attended features of contemporary professional training.

The A.T.M.S. 2nd National Medicine Summit in May 2013 is shaping as an exciting event and is bound to be on many members' calendars this year. The Summit is to be held in Sydney with booking available now and one of our guests will be Patch Adams, a celebrated American doctor and an activist for peace, justice and care of all people. Patch believes in laughter as medicine and has dedicated his professional life to it. More information is available on the A.T.M.S. website and blog and it is incredibly exciting that A.T.M.S. has secured this amazing man as a special guest at this year's summit.

NEWS FROM SOUTH QUEENSLAND

Amy Cooper

Happy New Year! I hope that you have all managed to stay safe and well despite the recent natural disasters. For those who have been hit by the floods, especially for the second time, I wish the recovery to be a speedy process and I ask you to let me know if there is anything I can help with as your representative.

On other matters, I hope you have had the opportunity to enjoy the webinar series 'How to have a Healthy and Profitable Business in the World of Natural Medicine"? Don't forget to join in for the final installment on 27th March.

I would also like to welcome ATMS's new CEO, Trevor Le Breton. I'd like to wish him well in the position and look forward to hearing about his future plans for ATMS.

Finally, I'd like to wish you all a Happy Easter!

NEWS FROM CENTRAL AND NORTH QUEENSLAND

Cathy Lee

At the time of writing this article I would be wishing you a Merry Christmas and a Happy and safe New Year. For most of us however by the time you read this article the holidays will be but a memory and we will be well into the New Year.

Throughout 2012 we were offered a variety of opportunities to enhance our knowledge and gain valuable CPE points. Early in 2013 a new opportunity is to be offered to us through the use of technology. Stephen Eddey will be the presenter on a Webinar on the 29th of January on research techniques, and I welcome feedback from this presentation from those of you have participated.

One of the major topics discussed within the field of Natural Therapies is the trend of health funds to remove their support for our industry. There is growing

concern that our clients may lose the ability to claim for our services through their health funds. Although this is seen to be beneficial for those therapists who do not currently have a qualification that attracts a rebate, it is not beneficial to those of us who take our profession seriously enough to have gained membership of governing bodies such as the Australian Traditional Medicine Society.

You may be aware that ATMS along with other professional bodies is working towards self-regulation. By working together as an industry and supporting our professional bodies in this endeavour we are working towards the self-sustainability of our industry. By enhancing our image within the health industry and society in general we are demonstrating our professionalism and with it our continued ability to utilise our many and varied knowledge bases, skills and abilities to the benefit of our clients in our wellness industry.

Fortunately for our industry we as professional natural health practitioners are coming together, supported by our clients, who have the power to enact changes provided we keep them well informed and engage them in issues relevant to our industry.

On a more personal matter, I have recently sold Evercare Clinic and I am now trading as Leeway Healing. I can be contacted through catherine.lee5@bigpond.com or on my mobile 0419 703 957. I very much appreciate the connections I have made with you in 2012 and look forward to hearing from you throughout 2013.

NEWS FROM TASMANIA

Bill Pearson

I send my very best wishes to all our practitioners throughout Australia for a healthy, joyful and prosperous 2013.

It is with concern that I write this third plea for new State Representatives for Western Australia, South Australia and Tasmania. In preceding Journals I have stressed the importance of these positions in maintaining communication and involvement on a state level, promoting natural medicine in your state and the opportunity for all Representatives to come together at each AGM to discuss issues pertaining to the position.

State representatives have opportunities to

- Assist at some PES seminars
- Get together with practitioners in your area
- Write for this Journal
- Be brought to each AGM

To be able to contribute to the ATMS and the profession is satisfying to say the least and I urge all of you who are reading this, if you are living in one of the states I've mentioned, please get in touch with me and I will furnish you with all you need to know. My email address is chimed@billpearson.com.au

Sadly the year has started tragically for many not only in Australia but also overseas with bushfires and other tragedies which stretch our sympathies to the very boundaries of our humanity. As natural medicine practitioners we will be called on more and more to give, to assist in a healing process which our training and hearts enable us to commit to admirably.

May 2013 see a change in consciousness and a smile emerge where none has before.

NEWS FROM ACT

John Warouw

The complementary medicine practice is simply just ticking along nicely in Canberra. Everyone is quite content conducting their own business as a Health Worker or working in the Health Food Industry.

During 2011 – yes, I know that is now two years ago – we organised a 'skill share' workshop with the aim of sharing Canberra practitioner experiences in order to lift the general experience of these practitioners. I had a recent request from one member in the Canberra region who has not only shown an interest in attending, but also in organising a similar event.

To that end, I'd be interested to hear from anyone who would like to express their interest in attending (and/or assisting with the organization of) such a workshop. This invitation is extended to ACT-based practitioners and those who are within the vicinity of Canberra.

Feel free to contact my on:
clinic@therapeuticplanet.com

Health Fund News

AUSTRALIAN HEALTH MANAGEMENT (AHM)

Names of eligible ATMS members will be automatically sent to AHM each month. ATMS members can check their eligibility by telephoning the ATMS on 1800 456 855.

AUSTRALIAN REGIONAL HEALTH GROUP (ARHG)

This group consists of the following health funds:
A.C.A. Health Benefits Fund Ltd.
Cessnock District Health Benefits Fund
CUA Health Limited
Defence Health Limited
GMHBA
GMF Health
health.com.au Pty Ltd
Health Care Insurance Limited
Health Partners Limited
HIF WA
Latrobe Health Services (Federation Health)
Mildura District Hospital Fund
Navy Health Fund
Onemedifund
Peoplecare Health Insurance
Phoenix Health Fund
Police Health Ltd
Queensland Country Health Fund Ltd
Railway & Transport Health Fund Ltd
Reserve Bank Health Society Limited
St. Luke's Health
Teachers Federation Health
Teachers Union Health
Transport Health
Westfund

When you join ATMS, or when you upgrade your qualifications, details of eligible members 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 AHHG websites. If you do not wish your details to be sent to ARHG, please advise the ATMS office on 1800 456 855.

Remedial massage therapists who graduated after March 2002 must hold a Certificate IV or higher from a registered training organisation. Please ensure that ATMS has a copy of your current professional indemnity insurance and first aid certificate.

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, M Remedial massage, N Naturopathy, O Aromatherapy, R Remedial therapies, 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 remedial massage, the ARHG provider numbers are AT00123W and AT00123M.

AUSTRALIAN UNITY

ATMS members will need to contact Australian Unity to register as a provider. Please check the table for eligible modalities. Phone: 13 29 39

BUPA (INCLUDING MBF, HBA AND MUTUAL COMMUNITY)

Names of eligible ATMS members will be automatically sent to BUPA each month. ATMS members can check their eligibility by telephoning ATMS on 1800 456 855.

CBHS HEALTH FUND LIMITED

On joining ATMS, or when you upgrade your qualifications, the details of eligible members are 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. Please ensure that ATMS has a copy of your current professional indemnity insurance and first aid certificate.

DOCTORS HEALTH FUND

Names of eligible ATMS members will be automatically sent to Doctors Health Fund each fortnight. ATMS members can check their eligibility by telephoning ATMS on 1800 456 855.

GRAND UNITED CORPORATE

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

HBF

To register with HBF, please contact the fund directly on 13 34 23.

HCF AND MANCHESTER UNITY

Names of eligible ATMS members will be automatically sent to HCF and Manchester Unity each fortnight. ATMS members can check their eligibility by telephoning ATMS on 1800 456 855.

MEDIBANK PRIVATE

Names of eligible ATMS members will be automatically sent to Medibank Private each month. ATMS members can check their eligibility by telephoning ATMS on 1800 456 855.

NIB

NIB require Health Training Package qualifications for naturopathy, Western herbal medicine, homoeopathy, nutrition, remedial massage, shiatsu and Chinese massage. Australian HLT Advanced Diploma qualifications are the minimum requirements for acupuncture and Chinese herbal medicine. Names of eligible ATMS members will be sent to NIB each week. NIB accept overseas qualifications which have been assessed as equivalent to the Australian qualification by Vetassess or and RTO college.

All recognised provides must agree to the NIB Provider Requirements, Terms and Conditions as a condition of NIB provider status. The document is available at http://providers.nib.com.au. Alternatively, a copy can be obtained by emailing providers@nib.com.au or calling NIB Provider Hotline on 1800 175 377. It is not necessary for ATMS members to complete the application form attached to NIB Provider Requirements, Terms and Conditions.

ATMS members currently recognised by NIB and who have not submitted their renewed professional indemnity insurance and/or first aid certificate to ATMS must do so immediately, or they will be removed from the NIB list. Documents needed for members to remain on the health fund list. To remain on the health funds list, members must have a copy of their current professional indemnity insurance and first aid certificate on file at the ATMS office and must meet the CPE requirements.

Please ensure that you forward copies of these documents to the ATMS office when you receive your renewed certificates. Lapsed membership, insurance or first aid will result in a member being removed from the health funds list. Upgrading qualifications may be required to be re-instated for some health funds.

CHANGE OF DETAILS

The ATMS office will forward your change of details to your approved health funds on the next available list. Health funds can take up to one month to process change of details.

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. More information can be obtained by calling Hicaps on 1800 80 57 80 Website: www.hicaps.com.au

Health Fund Update

Health Fund	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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)*	✔		✔					✔				✔			✔	✔				
Health Care Insurance Limited	✔		✔	✔			✔	✔				✔			✔	✔				
Health.com.au Pty Ltd	✔			✔			✔	✔				✔			✔	✔				
Health Partners	✔		✔	✔			✔	✔				✔			✔	✔				
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)*	✔		✔	✔			✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔			
HBF*	✔			✔			✔	✔				✔	✔	✔	✔					
HCF	✔	✔		✔				✔				✔	✔		✔					
Manchester Unity#	✔	✔	✔	✔			✔	✔			✔	✔	✔	✔	✔		✔			
Medibank Private	✔	✔	✔	✔	✔		✔	✔	✔		✔	✔	✔	✔	✔		✔		✔	
NIB	✔			✔			✔	✔				✔	✔		✔		✔		✔	

✔ *Therapy covered by Fund*
* *Need to Apply directly to Fund*

^ *BUPA includes MBF, NRMA Health Insurance, HBA, Mutual Community, SGIC Health Insurance, and SGIO Health Insurance*
\# *Manchester Unity no longer accepting new providers after merge with HCF*

LEGEND	
1	Acupuncture
2	Alexander Technique
3	Aromatherapy
4	Chinese Herbal Medicine
5	Counselling
6	Deep Tissue Massage
7	Herbal Medicine
8	Homeopathy
9	Hypnotherapy
10	Iridology
11	Kinesiology
12	Naturopathy
13	Nutrition
14	Reflexology
15	Remedial Massage
16	Remedial Therapies
17	Shiatsu
18	Sports Massage
19	Traditional Chinese Massage
20	Traditional Thai Massage

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.

HICAPS do not cover all Health Funds nor all modalities. Please go to www.hicaps.com.au for further information.

Continuing Professional Education

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

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

The ATMS CPE 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 CPE 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 CPE activities
- Emphasis on consultation and co-operation with ATMS members in the development and implementation of the CPE program

ATMS members can gain CPE points through a wide range of professional activities in accordance with the ATMS CPE policy. CPE activities are described in the CPE policy document as well as the CPE 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 CPE points per financial year. Five 5 CPE points can be gained from each issue of this journal. To gain five CPE 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:

- Grace S, Rogers, S, Eddey S. The natural medicine workforce in Australia: A national survey Part 1
- Courtney, R.The Importance of Correct Breathing for Raising Healthy Good Looking Children
- Boyle, MM.Mind Matters: Mind-body intervention in cancer treatment
- Wilks J. The Bowen Tehchnique: Mechanisms for action

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 CPE Record. As a condition of membership, the CPE Record must be kept in a safe place, and be produced on request from ATMS.

A new free app for iPhone, Android and Amazon Kindle

Pathology testing explained simply and clearly wherever and whenever you need it.

Whether you're a patient looking for answers that might reassure you about your health or a doctor, health professional or student seeking quick confirmation of a test, the new mobile app of Lab Tests Online-AU puts the information into the palm of your hand.

- 100s of pathology tests cross referenced to
- Diseases and conditions
- How tests are performed
- What they are looking for
- The variables of results and interpretations
- How specimens are collected and processed
- How pathology labs work
- Who works in them
- How you can help ensure the best from your test
- News updates
- And more!

Lab Tests Online-AU, the award-winning, not-for-profit website, delivers independent information written by working pathologists and scientists. The new app means that the features of the website will be available on your phone, even when you are offline or out of network range.

Lab Tests Online-AU has been developed by the Australasian Association of Clinical Biochemists (AACB) with support from the Royal College of Pathologists of Australasia (RCPA). It has been providing educational information for five years and has been funded under the Quality Use of Pathology Program of the Commonwealth Department of Health and Ageing.

Grow your practice with Sun Herbal

Comprehensive Online Support

NEW

- Reference manuals
- Case study analysis
- Seminars and training
- Current research
- Herb-drug interactions
- Bonus offers

and much more...

ChinaMed BLACK PEARL® RedPeony chinese medicine

JOIN US
Be part of the interactive Sun Herbal community

2013 Wholesale Price List Catalogue OUT NOW!

SunHerbal Better Naturally

YOUR SUN HERBAL DISTRIBUTORS: Acupuncture Australia 1800 886 916 Acuneeds Australia 1800 678 789 Bettalife Distributors 1300 553 223 China Books Melbourne 1800 448 856 China Books Sydney 1300 661 464 Far North Qld Nutritionals Townsville 07 4721 3666 Cairns 07 4051 3319 Healthco 1300 724 537 Helio Supply Company 1800 026 161 Herbs For Health 0800 100 482 Hong An Phat 03 9428 9982 Natural Remedies Group 1300 138 815 Oborne Health Supplies 1300 887 188 Rener Health Products 08 9311 6800 Sun Herbal 1300 797 668

www.sunherbal.com TELEPHONE SUPPORT LINE 1300 797 668

ATMS GI14375