

Journal of the
**Australian
Traditional
Medicine
Society**

ISSN 1326-3390

Demystifying iodine:
*Insights for thyroid
and hormonal health*

*How to improve
your flexibility
and range of
motion*

Convalescence
*in the recovery
process*

Targeting
chronic inflammation
*with nutrition
and lifestyle interventions*

*An update on
research in*
Homeopathy

Exploring
Vitamin B6:
The versatile nutrient

This advertisement is available only to
ATMS Accredited Members in accordance with the
Therapeutic Goods Advertising Code.

Contents

WINTER 2025

64

PRESIDENT'S MESSAGE

R. LANG

66

CEO'S REPORT

A. GIBBINS

ARTICLES



68

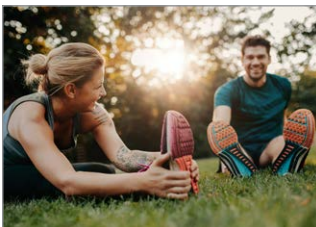
EXPLORING VITAMIN B6:
THE VERSATILE NUTRIENT

B. MCEWEN

76

TARGETING CHRONIC
INFLAMMATION WITH NUTRITION
AND LIFESTYLE INTERVENTIONS
DURING A COST-OF-LIVING CRISIS

C. BRINKWORTH & D. BADEN



80

HOW TO IMPROVE YOUR FLEXIBILITY
AND RANGE OF MOTION

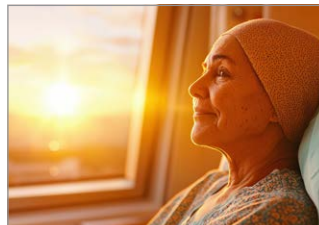
B. WALKER



84

DEMISTIFYING IODINE: INSIGHTS FOR
THYROID AND HORMONAL HEALTH

M. MILES



90

CONVALESCENCE

A. GRANT

92

AN UPDATE ON RESEARCH IN
HOMEOPATHY

R. MEDHURST



96

LAW REPORT
NEGLIGENCE LAW: AN OVERVIEW

I. PAGURA



98

PRACTITIONER PROFILE

MENPA-PEMA

REPORTS

95

REGULATION REPORT

104

RECENT RESEARCH

NEWS

101

TRANSITION TO PRACTICE

102

A TRIBUTE TO ROBYN KIRBY

114

HEALTH FUND UPDATE

117

CONTINUING PROFESSIONAL
EDUCATION

118

PRODUCTS & SERVICES GUIDE



President's Report

Rebecca Lang | ATMS President



As we move through the middle of 2025, I continue to feel deeply encouraged by the direction our profession is heading. There is a noticeable shift in energy, not only within ATMS but across the broader natural medicine community. I've had the privilege of speaking with so many of you in recent months, and there's a shared sense of purpose and hope that is growing stronger each day.

One of the most significant developments has been the Federal Government's acceptance of the NTREAP recommendations to reinstate seven natural therapies under private health insurance. While there is still a process ahead — each health fund will need to work through the reintroduction individually — this decision is an enormous step forward. It marks a turning point after years of collective advocacy by associations across the sector. So much time, energy, and dedication have gone into reaching this point, and it reflects a shared commitment to advancing the recognition and credibility of natural medicine in Australia.

What makes this achievement especially meaningful is that it wasn't driven by one voice or one organisation. It was the result of collaboration across the profession, standing together and advocating consistently for what we know makes a difference in people's lives. It's a proud moment for us all.

As President, one of my priorities this year has been to stay connected to the membership in real and practical ways.

In March and April, I hosted two Meet the President webinars, with nearly 500 registrations for the first and over 400 for the second. These sessions provided a valuable opportunity to speak directly with members about the issues that matter, to clarify points of confusion, and to share updates on the direction ATMS is taking. I've been genuinely heartened by your engagement, thoughtful questions, and the trust you continue to place in our leadership.

To support even more open communication, we created a Facebook message group where members can ask questions, raise concerns, and connect with each other. This space has become an important tool for ongoing dialogue, and we'll continue to offer opportunities like this to make sure you feel heard and supported by your association.

I'm also really looking forward to connecting with many of you in person at our upcoming Business Success Weekends. These events are being held in Perth, Melbourne, Adelaide, and Brisbane and are designed to provide practical support for building and sustaining a successful clinic. Whether you're just starting out or have been in practice for years, these weekends offer real tools, industry insights, and a chance to recharge professionally. I'll be attending alongside our CEO, Annie Gibbins, and we both warmly invite you to come along, introduce yourself, and have a chat. You can register on the website under events.

As Chair of the Regulatory Committee, I was involved in the preparation of a submission of a formal response to the Fair Work Commission's Gender Undervaluation – Priority Awards Review. You can read more on this in the Regulatory Committee update I have also written in this edition of the journal.

Another highlight this year was hosting our Lipoedema Symposium in Sydney. The event brought together practitioners and researchers passionate about improving awareness and care for people affected by this often misunderstood condition. The feedback was overwhelmingly positive, and it reinforced how important these opportunities for collaboration and education are for our growth as a profession.

I also want to acknowledge the commitments made for Natural Medicine Week 2025, with over 20 webinars held by ATMS, and our members and ambassadors showcasing the power of natural health through workshops, open days, and educational content. Your creativity, generosity, and commitment to public engagement made a real impact — thank you.

There is so much happening behind the scenes as well. Annie Gibbins continues to lead a range of operational improvements that are modernising and strengthening the organisation — from technology upgrades and digital communication tools to increased sponsorship and education partnerships.



To support even more open communication, we created a Facebook message group where members can ask questions, raise concerns, and connect with each other.

I'm grateful for her leadership and the continued dedication of our Board and team. Together, we are ensuring ATMS remains future-focused, responsive, and strategically positioned to support our members.

To each and every one of you, thank you. For showing up in your clinics, for investing in your professional growth, for standing strong in your values, and for the work you do every day that contributes to the health and wellbeing of your communities. You are the reason this association exists, and everything we do is with you in mind.

I look forward to continuing this journey with you in the months ahead. Let's keep building momentum — together.

Rebecca Lang
President

The Australian Traditional-Medicine Society Limited (ATMS) was incorporated in 1984 as a company limited by guarantee ABN 46 002 844 233.

ATMS HAS FIVE CATEGORIES OF MEMBERSHIP

Accredited member
Associate member
Student member (free)
Fellow
Life member

MEMBERSHIP AND GENERAL ENQUIRIES

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

PRESIDENT

Rebecca Lang | rebecca.lang@atms.com.au

VICE-PRESIDENT

Donna Eddy | donna.eddy@atms.com.au
Chantel Ryan | chantel.ryan@atms.com.au

TREASURER

Cassandra Duffill | cass.duffill@atms.com.au

DIRECTORS

Coby du Preez | coby.dupreez@atms.com.au
Sandra Grace | sandra.grace@atms.com.au
Geraldine Headley | geraldine.headley@atms.com.au
Brad McEwen | brad.mcewen@atms.com.au

ATMS JOURNAL EDITORS

Editor: Sandra Grace
Assistant Editor: Stephen Clarke

ADVERTISING SALES

Natalie Hume
ATMS Education and Partnerships Manager
T: 0438 421 333
E: natalie.hume@atms.com.au

LIFE MEMBERS

Catherine McEwan - bestowed 09/12/1994
Phillip Turner - bestowed 16/06/1995
Nancy Evelyn - bestowed 20/09/1997
Leonie Cains - bestowed 20/09/1997
Sandi Rogers - bestowed 09/04/1999
Maggie Sands - bestowed 09/04/1999
Freida Bielik - bestowed 09/04/1999
Marie Fawcett - bestowed 09/04/1999
Roma Turner - bestowed 18/09/1999
Bill Pearson - bestowed 07/08/2009
Sandra Grace - bestowed 18/11/2018
Denis Stewart - bestowed 18/11/2019
Christine Pope - bestowed 10/11/2024
Peter Berryman - bestowed 10/11/2024

HALL OF FAME

Dorothy Hall - inducted 17/09/2011
Marcus Blackmore - inducted 17/09/2011
Peter Derig - inducted 17/09/2011
Denis Stewart - inducted 23/09/2012
Garnet Skinner - inducted 22/09/2013
Simon Schot - inducted 10/12/2015

GRAPHIC DESIGN & PRODUCTION

Bubble Creative
T: 0416 087 412
E: design@bubblecreative.com.au

Copyright 2025. All rights reserved. The opinions expressed in this journal are those of each author. Advertisements are solely for general information and not necessarily endorsed by ATMS.



CEO's Report

Annie Gibbins | ATMS CEO



It's been a big year already, and we're only halfway through! From policy wins to tech upgrades, education expansion to public connection, 2025 is proving to be a turning point for ATMS and our profession.

Elevating Member Value and Visibility

The Federal Government's acceptance of the NTREAP recommendations is a huge moment for natural medicine. While full reinstatement of the seven therapies is still to come, this decision opens the door, and ATMS is front and centre, working with insurers and regulators to turn that potential into action.

Meanwhile, we've been refining the way you access and experience your membership. Our updated website now includes streamlined pages for health funds, insurance, and Fellow recognition, making it easier to find exactly what you need, when you need it.

Looking ahead to our next renewal cycle, I'm pleased to let you know there'll be no increase in your membership fees. The digital Journal will continue to be available in your member portal, and for those who prefer print, we're introducing a small postage fee to have a hard copy delivered to your door. More choice, same great value.

Building Business Confidence and Community

Helping you build a thriving, sustainable practice is a key part of our work. That's why we launched the ATMS Biz Club as a space to explore practical business strategies every fortnight. It's been

fantastic to see so many members show up eager to learn, grow and share.

Attending the Lipoedema Symposium in Sydney earlier this year was also a real highlight. The energy in the room was electric with rich discussion, clinical insight, and a powerful sense of purpose. I can't wait to connect again at the Healthy Brain Symposium in Sydney and our Business Success Weekends rolling out across Perth, Adelaide, Melbourne, and Brisbane.

Our CPE calendar continues to grow, with high-quality webinars, clinical updates, and in-person learning opportunities designed to keep you informed, confident and compliant.

Backing Education and Research with Action

Applications are now open for our 2025 Research Grant, and I encourage all eligible members exploring research to apply. We're also adding a dedicated research stream to this year's Annual Conference, reinforcing our belief that natural medicine deserves both heart and evidence.

Our CPE calendar continues to grow, with high-quality webinars, clinical updates, and in-person learning opportunities designed to keep you informed, confident and compliant.

Looking Ahead

Here's what we're focused on in the months to come:

- Making our digital systems even easier to use.
- Finalising the 2026 CPE calendar so you can plan ahead.
- Continuing high-level advocacy with government, insurers and health funds.
- Preparing a suite of white papers to educate and inform all stakeholders.
- Expanding our reach through Natural Medicine Week and public engagement.

Final Thoughts

To every member - thank you. I see your commitment. I hear your feedback. And I'm proud of the work we're doing together to ensure natural medicine is not only respected, but thriving.

Here's to the second half of 2025. Let's keep building momentum.

Annie Gibbins

CEO, Australian Traditional Medicine Society



ATMS SPECIAL EVENT

Healthy Brain Symposium

Discover how to support brain health in a world where metabolism has changed, lymphatic function is compromised, and there is an increasing toxic load from the environment at the Healthy Brain Symposium.

HILTON HOTEL SYDNEY
SATURDAY, 30 AUGUST 2025



SPEAKERS

SESSION: The sleep-mental health connection: Effective integrative strategies for restoring healthy sleep

DR ADRIAN LOPRESTI

Clinical Psychologist and Managing Director at Clinical Research Australia

SESSION SPONSOR

SESSION: The menopausal brain: Understanding neurological shifts and women's health

DR SARAH MCKAY

A Neuroscientist and science communicator, adept at making brain science accessible for enhancing health

SESSION: Understanding Neuro-Inflammation: A key to brain health & mental wellbeing

MEGAN WILKS

Founder & Chief Vitality Officer of The Vitalogy Project

SESSION: Optimising brain health: Preventing and reversing cognitive decline

JO GRABYN

Nutritional Medicine Practitioner with a life-long obsession for learning how to optimise brain health

SESSION: Rewiring the brain: The science of psychoneuroimmunology and biohacking

DR MARC COHEN

A Medical Doctor, University Professor, Author, Poet, Entrepreneur, wellness trailblazer and perpetual student of life

SESSION: Dementia: The what, the what to do, and the what not to do

DR MARK HOHENBERG

Practicing specialist Geriatrician and researcher at Western Sydney University's National Institute of Complimentary Medicines (NICM)

PLATINUM PARTNER:



GOLD SPONSORS:



SILVER SPONSORS:



BRONZE SPONSOR:



IN PERSON OR
STREAMING LIVE
ONLINE!



BOOK NOW!

atms.com.au/events



Exploring Vitamin B6: *The versatile nutrient*

Bradley McEwen | PhD, MHS (Hum Nutr), MPH, BHSc, AdvDipNat, DBM, DNutr, DSM, Fellow ATMS, Naturopath Nutritionist, and Mentor. Adjunct Senior Lecturer, Faculty of Health, Southern Cross University.

Abstract

Vitamin B6 is a water-soluble vitamin essential for numerous physiological processes, including amino acid metabolism, neurotransmitter synthesis, immune function, and regulation of homocysteine levels. Its role spans energy metabolism, mental health, cardiometabolic health, and modulation of inflammation and oxidative stress. This article provides a brief overview of vitamin B6, exploring its physiological roles, risk factors for deficiency, and health conditions linked with low vitamin B6 status. Safety considerations, including potential adverse effects and label warnings, are discussed. Understanding the multifaceted roles of vitamin B6 may aid in the prevention and management of diverse health conditions.

Introduction

Optimum nutrition is the foundation for optimum health.^{1,2} Poor nutrition is one of the most critical risk factors for chronic disease, as it can lead to a range of health issues that compromise the body's ability to function optimally.³ Vitamins are a group of organic compounds necessary for normal physiological functions.⁴ The significance of B complex vitamins begins early in human development (i.e., before and during pregnancy) and persists throughout various stages of life.⁴

Vitamin B6 acts as a vital co-factor in numerous biochemical reactions that govern essential cellular metabolism and influence overall physiological functions.⁵ The name pyridoxine was determined by György in 1936 due to its structural similarity to pyridine.⁶ Vitamin B6 comprises a group of six essential water-soluble chemical compounds that all contain a pyridine ring as their core.^{5,7,8} These vitamins are pyridoxal, pyridoxamine, pyridoxine, and their 5'-phosphate forms, for instance, pyridoxal 5'-phosphate,

pyridoxamine 5'-phosphate, and pyridoxine 5'-phosphate.^{5,8-16} They differ from each other in a variable group at the pyridine's 4' position, which can either be a hydroxyl methyl group (pyridoxine), an amino methyl group (pyridoxamine), or an aldehyde (pyridoxal).^{5,7,8} The active form, pyridoxal phosphate (PLP),^{5,7-10,12-17} serves as a cofactor for approximately 160 reactions in the body.^{9,10,17} Almost 1.5% of all genes in prokaryotes code for PLP-dependent enzymes.¹⁸



This article presents an overview of vitamin B6, covering aspects such as physiological functions, factors leading to deficiency, health issues associated with insufficient vitamin B6 levels, dosage ranges, as well as adverse effects and label warnings related to vitamin B6.

Functions of Vitamin B6

Vitamin B6 is involved in various metabolic, biochemical and enzymatic functions, such as those in energy metabolism, cardiometabolic health, metabolism of homocysteine, nervous system, mental health, inflammation, oxidative stress, and immune system. Table 1 shows some of the functions of vitamin B6.

Vitamin B6 and Biochemical and Enzymatic Processes

PLP-dependent enzymes catalyse more than 140 distinct enzymatic reactions.^{5,7,17} Enzymes that depend on PLP exhibit significant diversity, and the reactions they catalyse are believed to account for approximately 4% of all recognised catalytic activities.⁸ Some examples of PLP-dependent enzymatic reactions include the synthesis of putrescine from L-ornithine, leading subsequently to the synthesis of spermidine and other polyamines, and the conversion of serine to glycine and tetrahydrofolate to 5,10-methylenetetrahydrofolate.⁸

Vitamin B6 plays a vital role in the metabolism of carbohydrates, lipids,

amino acids, and nucleic acids. It facilitates glycogen degradation in conjunction with glycogen phosphorylase, serving as a coenzyme in the transamination and decarboxylation of amino acids, and participating in reactions catalysed by amino acid synthases or racemases.⁹ PLP-dependent enzymes are involved in fatty acid metabolism.^{5,7} The enzyme δ -6-desaturase catalyses the synthesis of vital polyunsaturated fatty acids by the desaturation of linoleic acid and γ -linolenic acid.⁷ Enzymes that depend on PLP play a crucial role in amino acid metabolism by facilitating key reactions such as transamination, racemisation, decarboxylation, and α,β -elimination.⁷

Vitamin B6 and Energy Metabolism

PLP plays a major role in energy metabolism.¹⁴ Vitamin B6 is involved in the metabolism of protein, carbohydrates and lipids,^{9,19} and in gluconeogenesis^{11,19} and glycogenolysis.¹¹ PLP is an important cofactor for the metabolism of glycogen.^{7,24} The PLP-dependent glycogen phosphorylase mediates the breakdown of stored glycogen by the release of glucose from glycogen.⁷ Glycogen can be mobilised within the cell through the action of glycogen or starch phosphorylase, an enzyme that relies on PLP and catalyses the hydrolysis of α -1,4-glycosidic bonds, resulting in the production of glucose-1-phosphate.⁵ Vitamin B6 is essential for supporting mitochondrial function.¹⁴

Vitamin B6 and Cardiometabolic Health

Low plasma levels of PLP in humans have been associated with high-risk atherosclerosis, stroke, and thrombosis.⁹ PLP-dependent enzymes are involved in haemoglobin formation.⁷ The rate-limiting enzyme in haem biosynthesis is the PLP-dependent 5-aminolevulinate acid synthase.¹⁰ Vitamin B6 might influence the influx of Ca²⁺ into cells through voltage-gated ATP-dependent purinergic receptors, indicating its potential involvement in the management of hypertension and cardiac dysfunction.⁹ PLP regulates various cardiometabolic processes, including the management of blood pressure through its effect on the renin-angiotensin system, as well as the mechanisms of blood coagulation, thereby maintaining endothelial integrity and facilitating platelet aggregation.⁹ Vitamin B6 contributes to cardioprotection by influencing the actions of histamine, GABA, and imidazole dipeptides, as well as by inhibiting the P2 \times 7R-NLRP3 inflammasome.⁹ Studies indicate that the consumption of glucose by healthy individuals results in reduced PLP levels.⁹ PLP plays a crucial role in maintaining the homeostasis of carnosine, homocarnosine, and anserine, which serve as cardioprotective agents possessing antioxidant and anti-inflammatory characteristics.⁹

Metabolism of one-carbon units ^{14,16,19-21}	Trans-sulphuration ^{13,16,20,22}	Synthesis of amino acids ^{5,8,13,16}	Regulation of DNA synthesis ¹⁴
Metabolism of DNA ¹⁶	Nucleic acid synthesis ²³	Thymidine biosynthesis ⁴	Metabolism of amino acids ^{5,7,10,11,18,24}
Protein metabolism ^{17,19}	Protein synthesis ²³	Metabolism of amine substrates ¹¹	Transamination reactions ^{5,7,8,23}
Deamination reactions ²³	Decarboxylation ^{7,23}	Racemisation ^{7,23}	Aminotransferases ¹⁴
Cystathionine β -synthase ²²	Cellular proliferation ²³	Carbohydrate metabolism ^{17,19}	Glucose metabolism ^{8,10,15,16}
Fatty acid metabolism ^{8,10}	Lipid metabolism ^{13,16,17,19}	Gluconeogenesis ¹⁹	Metabolism of homocysteine ^{19,22}
Protein folding and stabilisation of proteins ⁵	Catabolism of amino acids ^{5,8}	Iron-sulphur (FeS) biosynthesis ¹⁴	de novo synthesis of NAD ⁺ ¹⁴
Neurological development ¹⁹	Synthesis and metabolism of neurotransmitters ^{5,10,16}	Reduces corticosteroid release peripherally ⁴	Cell signalling ¹⁵
Synthesis of haem ^{4,16}	Formation of haemoglobin ¹⁹	Iron utilisation by red blood cells ⁴	Porphyrin synthesis ⁴
Modulation of transcription factors ^{13,16}	Synthesis of the methyl donor S-adenosylmethionine (SAM) ¹⁴	Interleukin-2 production ²³	Immunocompetence ⁴
T-Helper cell activation ²³	Antibody production ²³	Supporting mitochondrial function ¹⁴	Oestrogen metabolism ⁴
Antioxidant ¹⁶	Scavenging of reactive oxygen species ⁵	Reducing the formation of reactive oxygen species ¹⁷	Reducing the generation of advanced glycation end products (AGEs) ¹⁷

Table 1. Functions of Vitamin B6



Vitamin B6 serves as a cofactor in the catabolism of tryptophan.⁷ PLP deficiency can influence type 2 diabetes through several mechanisms. PLP is an essential cofactor for numerous enzymes involved in the metabolic conversion of tryptophan to niacin, specifically through the tryptophan-kynurenine and kynurenine-nicotinamide adenine dinucleotide pathways.¹⁷ Disruption of these pathways results in the production of metabolites that reduce insulin bioactivity, contributing to insulin resistance, a hallmark of type 2 diabetes. Furthermore, PLP may impact insulin resistance by modulating the expression of genes related to adipogenesis.¹⁷ Additionally, disruption of these metabolic pathways results in elevated levels of kynurenine metabolites, which in turn inhibit insulin secretion and diminish glucose tolerance.⁷

Research indicates that an increase in daily supplementation of vitamin B6 from 1.3 mg to 1.6 mg significantly decreases the incidence of patients reporting coronary heart disease and myocardial infarction. Furthermore, additional research suggests a relationship between higher vitamin B6 intake and a reduced risk of coronary heart disease.⁸ This could be due to a decrease in homocysteine via a PLP-dependent enzyme that converts homocysteine to cysteine.⁸ The level of PLP in plasma among post-menopausal women is inversely associated with the risk of a myocardial infarction.⁹

Vitamin B6 has the potential to reduce the damage caused by oxygen radicals, decrease the production of lipid peroxides, play a role in reducing inflammatory processes, and protect against vascular endothelial injury induced by low-density lipoproteins.²⁵

Research indicates that an increased intake of vitamin B6 could be an effective strategy in reducing the risk of stroke.²⁵ Research involving²⁴ 214 participants indicated that individuals in the highest quartile of vitamin B6 intake exhibited a markedly reduced risk of stroke compared to those in the lowest quartile.²⁵

Vitamin B6 and the Metabolism of Homocysteine

Homocysteine participates in two essential biochemical pathways. It can be transformed into S-adenosylmethionine, which is vital for DNA expression through the transfer of methyl groups, or it can be used to synthesise glutathione, enhancing its antioxidant properties. Elevated levels of homocysteine are linked to various health conditions, including an increased risk of cardiovascular diseases, dementia, and overall increased mortality.²⁶ PLP plays an important role in the homocysteine metabolic pathway,^{5,7,9,22,24,25} serving as a cofactor for two enzymes involved in cystathionine synthesis: it facilitates the transformation of homocysteine into cystathionine and cystathionase, as well as the production of cysteine from cystathionine,^{5,9} via a trans-sulphuration pathway by the PLP-dependent enzyme cystathionine β -lyase.^{5,22} Additionally, homocysteine undergoes methylation to form methionine through the action of 5-methyltetrahydrofolate, a crucial component in the synthesis of purines and thymidylate.⁵ This methylation process is dependent on cobalamin and folate, and involves PLP-dependent enzymes such as serine hydroxymethyltransferase (SHMT), which facilitates the conversion of tetrahydrofolate (THF) into 5,10-methylene tetrahydrofolate.⁵ A deficiency in vitamin B6 leads to elevated homocysteine levels, which can have significant health consequences.⁹

Vitamin B6, the Nervous System and Mental Health

Vitamin B6 is involved in neurological development.¹⁹ Research has found that a greater intake of foods that contain high amounts of vitamin B6 correlates with better mental health.^{5,27} Pyridoxal-5-phosphate (PLP) plays an important role in the metabolism of neurotransmitters^{7,11,20} such as serotonin,^{5,20,28} dopamine,^{5,20,28} glutamate,^{20,28} gamma-aminobutyric acid (GABA),^{20,28} noradrenaline,²⁸

and adrenaline.⁵ Phosphorylated vitamin B6 is needed as a cofactor for neurotransmitter synthesis⁷ and neurotransmission.¹³ PLP serves as a cofactor for glutamate decarboxylase, the enzyme responsible for the synthesis of GABA⁹ and for the conversion of glutamate to GABA in the brain.²⁹ Vitamin B6 acts as a cofactor in the kynurenine pathway in which it reduces the amount of quinolinic acid, which is an agonist to the excitatory N-methyl-D-aspartate (NMDA) receptor.²⁸ PLP plays a role in brain function.¹³ Vitamin B6 regulates the synthesis and metabolism of 5-hydroxy tryptamine (5HT), serotonin receptors, and catecholamines.⁴ Pyridoxine reduces corticosteroid release peripherally.⁴ Vitamin B6 is involved in the biosynthesis of sphingolipids,¹¹ metabolism and regulation of sphingosine phosphate.⁹

Results from a 7-month randomised double-blind crossover study³⁰ indicate that pyridoxine 50 mg daily produced a statistically significant positive effect on emotional symptoms such as depression, irritability, and fatigue during the premenstrual phase in women diagnosed with premenstrual syndrome; symptoms were reduced by approximately 50% during treatment months when compared to the placebo months. No reports of neurological symptoms or other adverse effects associated with pyridoxine were noted.³⁰ A comprehensive systematic review was performed on randomised placebo-controlled trials assessing the efficacy of vitamin B6 in treating premenstrual syndrome.³¹ The findings indicated that vitamin B6 was significantly more effective than placebo in alleviating general premenstrual symptoms and in reducing depression linked to premenstrual syndrome. Furthermore, no evidence of neurological side effects was observed at doses ranging from 50 to 500 mg per day.³¹

A double-blind study investigated the effects of pyridoxine hydrochloride 100 mg or methylcobalamin 1,000 micrograms, compared to placebo, for



1 month.²⁸ Pyridoxine hydrochloride supplementation led to a decrease in self-reported anxiety levels and suggested a potential reduction in depressive symptoms.²⁸

Vitamin B6 and Inflammation

Inflammation-related diseases, such as cardiovascular disease, diabetes, rheumatoid arthritis, and inflammatory bowel disease have been associated with low vitamin B6 status.¹⁰ Vitamin B6 plays a role in reducing inflammation by modulating the function and activity of inflammasomes, particularly the nucleotide-binding domain, leucine-rich-containing family, pyrin domain-containing-3 (NLRP3) sensory protein.⁹ Research indicates a negative correlation between vitamin B6 intake and inflammation levels.³² Additionally, research indicates that individuals with chronic inflammation exhibited the lowest levels of vitamin B6, while those with elevated vitamin B6 levels demonstrated reduced inflammation.⁹ Individuals with insufficient vitamin B6 demonstrate elevated inflammatory markers.³² The impact of inflammation on vitamin B6 levels may result from the accumulation of PLP in inflamed tissues,^{10,32} potentially being attracted to areas of active inflammation³² and/or from heightened metabolic breakdown.¹⁰

PLP reduces the synthesis of IL-1 β , a strong proinflammatory cytokine, as well as reducing the generation of reactive oxygen species (ROS) by inhibiting the NLRP3 inflammasome.⁹ A deficiency in Vitamin B6 can lead to elevated levels of IL-1 β and subsequent tissue damage caused by free radicals.⁹ Vitamin B6 is involved in the action of the transcription factor NF- κ B.⁹ There is an inverse relationship between vitamin B6 and IL-6 and TNF- α levels in conditions of chronic inflammation.^{9,33} Vitamin B6 supplementation decreased IL-6 levels in patients with chronic disease⁹ and rheumatoid arthritis.³³


Vitamin B6 promotes the phosphorylation of adenosine monophosphate-activated protein kinase (AMPK) at the Thr172 site, which enhances its activity. This kinase acts as an inhibitor of inflammatory processes within the cell.⁹ Vitamin B6 plays a role in the regulation of anserine, carnosine, histamine, and GABA, and it may also influence the P2X7R-NLRP3 inflammasome, which could contribute to the reduction of inflammation.⁹

PLP plays a crucial role in the conversion of sphingosine-1-phosphate.⁹ Sphingosine-1-phosphate serves as a potent inflammatory mediator and is instrumental in

facilitating the release of lymphocytes from lymphoid tissues. This molecule acts as a regulatory factor in the development of cells within both the hematopoietic and nervous systems.⁹ Often referred to as a director or conductor among cellular components, sphingosine-1-phosphate significantly influences their differentiation, migration, adhesion, and overall lifespan.⁹ In the case of PLP deficiency, the activity of sphingosine-1-phosphate lyase is suppressed.⁹ A deficiency in sphingosine-1-phosphate lyase results in the accumulation of lymphocytes within secondary lymphatic organs and areas of inflammation.⁹ This condition contributes to lymphopenia and immunosuppression, aggravates local inflammatory responses and elevates the production of pro-inflammatory cytokines.⁹

Vitamin B6 and Oxidative Stress

Vitamin B6 is a key player in the antioxidant system³² and has antioxidant properties.⁸ While vitamin B6 is not traditionally recognised as a classical antioxidant, it has the ability to neutralise reactive oxygen species (ROS) and inhibit the development of advanced glycation end products (AGEs).¹⁶ PLP-dependent enzymes are believed to function directly as a defensive mechanism against reactive oxygen species, including singlet oxygen.⁷

 Integría Practitioner® | symposium

Flourish - Reigniting the Art & Science of Innate Healing Throughout the Lifespan

Saturday 16 & Sunday 17 August 2025
Sofitel Brisbane Central or via Live Stream
For practitioners only.

Register Now: integría.com/en-au/event/flourish-the-art-science-of-innate-healing



DISCOVER

The latest findings on post-traumatic growth and emotional resilience.



EXPLORE

The potent anti-inflammatory and detoxification pathways within us.



LEARN

How to harness and enhance our natural healing mechanisms.



Vitamin B6 plays a role in the regulation of anserine, carnosine, histamine, and GABA, and it may also influence the P2X7R-NLRP3 inflammasome, which could contribute to the reduction of oxidative stress, and the reduction of oxidative stress.⁹

Research shows that pyridoxine enhances antioxidant responses, likely through the upregulation of nuclear Nrf2 gene expression, while also lowering mitochondrial reactive oxygen species (ROS) levels. Supplementation with PLP led to reduced activation of the NLRP3 inflammasome and a decrease in the production of inflammatory cytokines in macrophages, linking mitochondrial-derived ROS production to nuclear signalling pathways within immune cells.¹⁴ The involvement of vitamin B6 in the metabolism of sugars and lipids may contribute to the reduction of advanced glycation end products and lipoygenation end products.⁸

Vitamin B6 and the Immune System

Pyridoxine deficiency leads to impairment of immune responses.²³ Vitamin B6 plays various roles in the immune system,¹³ such as participating in the functioning of the entire immune system, supporting both innate and acquired immunity,⁹ and is required for antibody production.²³ Vitamin B6 supplementation has been found to increase total lymphocytes in patients with chronic disease.⁹ Vitamin B6 plays a key role in the production of T lymphocytes and interleukins.⁹ Vitamin B6 supports a Th1 cytokine-mediated immune response and modulates immune cell function.³⁴ Vitamin B6 deficiency disrupts the Th1-Th2 balance toward an excessive Th2 response, which may result in allergies.⁹ PLP plays a significant role in shaping the intestinal microbiota, which in turn has an impact on immune responses.⁹

A deficiency of vitamin B6 results in a weakened immune response,⁹ characterised by atrophy of lymphoid organs,³⁵ a decrease in lymphocyte numbers,³⁵ a reduction in serum antibody

levels,⁹ a decline in IL-2 production,^{9,35} and an elevation in IL-4 levels.⁹

Deficiency of Vitamin B6

A deficiency of B vitamins may arise from various factors, such as dietary insufficiency,²² intestinal absorption,³⁶ malabsorption syndromes (such as Crohn's disease, ulcerative colitis and coeliac disease),^{5,16} inflammation,^{16,22} decreased protein binding capacity of plasma,²¹ variation in enzyme binding affinity,²⁹ altered or defective cellular and intercellular transport,³⁶ impaired or altered metabolism,^{22,36} high and continuous alcohol consumption,^{5,13,16} smoking,¹³ oral contraceptive use,^{16,37} analgesics,¹³ antibacterials,¹³ penicillamine,¹⁶ antidiabetic medications,¹³ metformin,³⁸ antidepressant medications,¹³ isoniazid,¹⁶ calcium blockers,¹³ asthma prescriptions,¹³ lipid-lowering medications,¹³ antiepileptic medications,^{5,13,25} severe renal disease,^{5,16} pregnancy,¹⁶ and certain genetic disorders such as homocystinuria.⁵ Additionally, a deficiency may arise when the physiological requirement for the vitamin is higher than the intake or the intake is suboptimal.³⁶ Age-related declines in both dietary vitamin B6 intake and plasma PLP concentration have been observed in males and females,¹³ with vitamin B6 status declining with age across adulthood, particularly in males.²¹ These factors may compromise vitamin B6 levels and status, highlighting the importance of monitoring dietary intake and implementing appropriate nutritional interventions.

Prolonged deficiency of vitamin B6 has been associated with the development of a painful axonal peripheral neuropathy, which results in symptoms such as muscle weakness, diminished reflexes, sensory impairment, and ataxia, especially affecting the lower extremities.¹⁰ Low vitamin B6 status, based on plasma PLP concentrations, has been identified in diseases associated with low-grade inflammation.¹⁰ Various health issues may arise due

to the involvement of vitamin B6 as a coenzyme in the synthesis of haemoglobin and neurotransmitters.¹⁰ Health conditions linked with low vitamin B6 status are shown in Table 2.

Microcytic anaemia ^{4,5,10}
Microcytic hypochromic anaemia ⁴
Anaemia ^{4,11}
Depression ^{5,10,11,30}
Irritability ³⁰
Pre-menstrual syndrome ^{30,31}
Confusion ^{5,10,11}
Cognitive decline ¹⁰ or impairment ¹³
Electroencephalographic abnormalities ^{5,11}
Convulsive seizures ⁵
Non-responsive polymorphic seizures ⁴
Recurrent neonatal or infantile seizures ⁵
Painful axonal peripheral neuropathy ¹⁰
Increased nerve excitability ⁴
Carpal tunnel syndrome ³⁹
Irritability ¹¹
Cardiovascular disease ^{10,13,15}
Homocysteinaemia ^{5,7,9,13,15,24}
Type 2 Diabetes ^{10,15-17,40}
Fatty acid accumulation ⁴
Lipid profile alteration ⁴
Decreased carnitine biosynthesis ⁴
Dermatitis ^{5,11}
Glossitis ¹¹
Migraine ¹⁰
Weakened immune system ^{4,5,9,11,13,15,35,41,42}
Impaired antibody response ²³
Reduced immune response ²³
Lymphopaenia ⁴
Impaired or delayed hypersensitivity response ²³
Rheumatoid arthritis ¹⁰
Hashimoto's thyroiditis ⁴³
Inflammatory bowel disease ¹⁰
Altered lung function ³²
Inflammation ^{10,13,15,16,43}
Oxidative stress ¹³
Tissue damage caused by free radicals ⁹
Lipid peroxidation ³²
Hyperemesis gravidarum ⁴
Frailty in the elderly ¹³
Impaired mobility ¹³
Reduced physical performance ^{13,24}

Table 2. Health conditions linked with low vitamin B6 status

The WHO-recommended daily intake of vitamin B6 for adults is 1.3-1.7 mg per day.



Dosage range of Vitamin B6

The WHO-recommended daily intake of vitamin B6 for adults is 1.3-1.7 mg per day.⁹ The various doses of vitamin B6 used in studies include 1.3 mg,⁴ 1.5 mg,⁴ 1.6 mg,^{8,14} 1.7 mg,¹⁴ 2 mg,⁸ 5.5 mg,⁴ 20 mg,⁴⁴ 40 mg,³¹ 50 mg,^{30,31,41,42,45} 100 mg,^{4,8,28,29,31,33,41} 150 mg,³¹ 200 mg,³¹ 300 mg,^{17,31} and 500 mg.³¹

In Australia, there are regulations governing the maximum recommended daily dose of pyridoxine (from pyridoxine hydrochloride, pyridoxal 5-phosphate, pyridoxal 5-phosphate monohydrate) of an individual medicine (supplement).⁴⁶ The maximum recommended daily dosage of an individual medicine for each age group is outlined below.

- 15 mg of pyridoxine for children aged between 1 and 3 years (inclusive)
- 20 mg of pyridoxine for children aged between 4 and 8 years (inclusive)
- 30 mg of pyridoxine for children aged between 9 and 13 years (inclusive)
- 40 mg of pyridoxine for individuals aged 14 and 18 years (inclusive)
- 100 mg of pyridoxine for individuals aged 19 years and older⁴⁶

Adverse reactions of Vitamin B6

Beginning in the 1980s, several case studies documented instances of sensory neuropathy in individuals consuming high doses of pyridoxine over prolonged periods of time.¹¹ Neuropathy resulting from pyridoxine is marked by symmetrical and progressive deficits in the ability to perceive touch, pin-prick

P & Y Beauty & Massage Accessories Pty Ltd

Hot Stone \$6+GST/ea up

Liv-Wipe Alcohol Swab \$2.2+GST

Foot massage cream \$5+GST

Towel Machine \$180+GST up

Bed sheet \$0.30+GST up

Steaming Wooden bucket \$320+GST

Huanqiu Acupuncture needles in all size (with tube) \$3+GST/box

Infrared light \$180+GST

Foot Herbal \$10+GST/pack

Wooden bucket (40*30cm) \$55+GST

Needle Stimulator Special \$139+GST

Ear Candle \$0.8+GST

Wooden Massage table Size: 190*90*65cm 190*70*68cm Special price \$580/ea+GST

Hot Packs (Hot stone) \$15+GST

Detox Machine \$450+GST

Address: 13B Lancelot St. Condell Park NSW 2200
 Tel: 02-9790 6288 or 0425 370 218 Email: info@pymassage.com
 www.pymassage.com



sensations, temperature, vibration, and positional awareness in the extremities.¹¹

Elevated intakes of vitamin B6 exceeding 50 mg per day over extended durations, ranging from months to years, have been associated with negative effects.¹⁰ These effects manifest as mild neurological symptoms. Significantly higher doses of 500 mg per day or more can lead to neurotoxicity.¹⁰ Case reports indicate that the administration of high doses of pyridoxine, generally exceeding 2,000-6,000 mg per day, over prolonged periods ranging from several months to years, has been associated with neuropathy.^{5,11} It is unlikely that an individual would encounter such symptoms in typical circumstances⁵ or while receiving treatment from a qualified, accredited health practitioner. The case reports indicated that high levels of pyridoxine resulted in the development of progressive sensory peripheral neuropathy. The early signs of neuropathy usually manifest as tingling sensations in the toes.¹¹ Neurological manifestations comprised paraesthesia, hyperesthesia, bone discomfort, muscle weakness, numbness, involuntary rapid muscle twitches, and a reduction in tendon reflexes.¹¹

It is noted that numerous controlled studies have demonstrated that daily doses of pyridoxine ranging from 100 to 500 mg

are generally well tolerated. Additionally, studies indicate that pyridoxine at doses of 200 to 500 mg daily over several years did not result in neurological symptoms.¹¹

ELEVATED INTAKES OF VITAMIN B6 EXCEEDING 50 MG PER DAY OVER EXTENDED DURATIONS, RANGING FROM MONTHS TO YEARS, HAVE BEEN ASSOCIATED WITH NEGATIVE EFFECTS.¹⁰ THESE EFFECTS MANIFEST AS MILD NEUROLOGICAL SYMPTOMS.

Upon cessation of pyridoxine, the symptoms are generally reversible.^{7,8} Research indicates that symptoms commonly worsen at first before gradually improving, with notable improvements generally observed within approximately 6 months.¹¹

Label warnings of Vitamin B6 medicines

In Australia, there are regulations governing the label warnings of pyridoxine-containing Listed Medicines.

If the maximum recommended daily dose of the medicine provides more than 10 mg of equivalent pyridoxine, the following warning statement is required on the medicine label:

WARNING - Stop taking this medication if you experience tingling, burning or numbness and see your healthcare practitioner as soon as possible. [Contains vitamin B6].^{4,6}

Conclusion

Vitamin B6 plays a critical role in numerous physiological and biochemical pathways, including amino acid metabolism, neurotransmitter synthesis, immune function, and homocysteine regulation. Its involvement in a wide range of health conditions, from mental health to cardiometabolic and immune health, underscores its clinical importance. Understanding the factors influencing vitamin B6 status, along with dosage ranges and safety considerations, is essential for effective therapeutic use. Continued research is warranted to further detail its role in complex metabolic interactions and disease management and prevention.

REFERENCES

For a full list of references, please email the Editor: editor@atms.com.au

 **SIMPLECLINIC**
Simplifying Practice
Empowering Practitioners



Designed exclusively for Natural Health Practitioners to automate, integrate & streamline your clinic. Our innovative platform helps you provide an exceptional patient experience, so you can focus on delivering your patients the best healthcare. Visit simpleclinic.net to learn more.

This advertisement is available only to
ATMS Accredited Members in accordance with the
Therapeutic Goods Advertising Code.



Targeting *chronic inflammation*

with nutrition and lifestyle
interventions during a
cost-of-living crisis

Camilla Brinkworth | BHSc (Naturopathy), PG Cert (Human Nutrition)
Daniel Baden | ND

Abstract

In a cost of living crisis, many people face difficult decisions, such as deciding between purchasing food or (natural) medicine. In the case of chronic inflammation, food can be a form of medicine. Together with simple lifestyle modifications and potentially supplementing with a single herb (*Buglossoides arvensis*), we can help our patients take control of their health. This review explores the role of nutrition and lifestyle interventions in modulating inflammation, with a focus on dietary components such as polyphenols, curcumin, omega-3 fatty acids, and dietary fibre. Additionally, lifestyle factors, including plant-based dietary patterns, sleep quality, exercise, stress management, and healthy social relationships, are examined. Evidence from peer-reviewed scientific literature is presented to support these interventions in mitigating chronic inflammation and improving overall health outcomes.

Introduction

Inflammation is a complex biological response that plays a crucial role in immune defence and tissue repair. Although acute inflammation is a necessary and protective process, chronic inflammation has been implicated in the pathogenesis of numerous chronic diseases, including cardiovascular disease, diabetes, and autoimmune disorders.(1, 2) This review explores the role of *Buglossoides arvensis* (Ahiflower, Corn Gromwell) seed oil together with diet and lifestyle interventions in modulating the inflammatory response.

Acute vs. Chronic Inflammation

Acute inflammation is a short-term

immune response characterised by the release of pro-inflammatory mediators such as cytokines, histamines, and prostaglandins, which facilitate pathogen clearance and tissue repair.(3) In contrast, chronic inflammation persists over time and contributes to pathological conditions by promoting oxidative stress, endothelial dysfunction, and immune dysregulation.(4, 5)

Inflammatory Markers

There are several biomarkers commonly used to assess inflammation, some of these include:

- **C-Reactive Protein (CRP):** An acute-phase protein associated with increased cardiovascular risk.(6)

- **Interleukin-6 (IL-6):** A pro-inflammatory cytokine implicated in metabolic syndrome and cardiovascular disease.(7)
- **Tumour Necrosis Factor-alpha (TNF-alpha):** A key mediator in systemic inflammation and autoimmune conditions.(8)

Nutritional Interventions for Inflammation

Buglossoides arvensis (BA) is a herbaceous plant that grows to a height of 45 cm in many parts of the world, characterised by its notable white flowers. Its seed oil provides an exceptionally rich source of omega fatty acid structures and precursors (omega-3 alpha linoleic acid



(ALA) (c18:3), omega-3 stearidonic acid (SDA) (c18:4) and omega-6 gamma linolenic acid (GLA) (c18:3) which are efficiently converted endogenously to other biologically active forms. Its potent anti-inflammatory effects are instigated by modulating eicosanoid synthesis and cytokine production.(4) A standout feature of BA seed oil is its high natural concentration of stearidonic acid (SDA), which is efficiently converted into eicosapentaenoic acid (EPA), a precursor to anti-inflammatory prostaglandins.(9) BA has been shown to effectively improve several markers of inflammation including TNF-alpha, the ratio of EPA to arachidonic acid (EPA:ARA ratio), Interleukin-10 and Interleukin 10:6 ratio.(9-12) Upon ingestion, BA's uniquely complete and balanced plant-derived lipid profile generates the broadest spectrum of anti-inflammatory oxylipins achievable through an essential fatty acid source.

Polyphenols found in fruits, vegetables, tea, and coffee exhibit anti-inflammatory properties by reducing oxidative stress and inhibiting pro-inflammatory pathways.(13) The consumption of polyphenol-rich foods has been associated with lower levels of inflammatory markers.(14) Phenolic compounds and flavonoids can interact with reactive oxygen species (ROS)/ reactive nitrogen species (RNS) and terminate chain reactions before cell

viability is deleteriously affected.(15) Plant-centred whole food diets have been associated with reduced inflammation due to their high antioxidant and fibre content.(16) Studies have demonstrated lower CRP and IL-6 levels in individuals following plant-based dietary patterns.(17) Furthermore, case series using a protocol centred on raw leafy green vegetables, particularly cruciferous, plant sources of omega-3 and water with the intention of improving cellular function and reducing inflammation, have shown remarkably fast resolution of autoimmune conditions.(18)

Dietary Fibre plays a crucial role in modulating inflammation by influencing gut microbiota composition and the production of short-chain fatty acids (SCFAs).(19) High-fibre diets are associated with lower CRP levels and reduced risk of inflammatory diseases.(20, 21)

Lifestyle Interventions for Inflammation

Sleep and Inflammatory Regulation

Chronic sleep deprivation and sleep disturbances are associated with increased inflammatory markers, including CRP and IL-6, and contribute to systemic inflammation and immune system dysregulation.(22-24) Educating patients on sleep hygiene practices is important in a holistic treatment approach.

Moderate Exercise and Systemic Inflammation

Regular physical activity exerts anti-inflammatory effects by reducing adipose tissue inflammation and increasing the activity of antioxidant enzymes.(25) Moderate exercise has been shown to decrease levels of TNF-alpha and IL-6.(26-28)

Stress Management and Healthy Relationships

Psychological stress is a known contributor to chronic inflammation through the activation of the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system.(29) Engaging in stress-reducing activities such as meditation and maintaining strong social relationships has been shown to lower inflammatory biomarkers.(30,31)

Conclusion

Chronic inflammation is a key driver of many chronic diseases. At a time when the cost of living crisis can adversely impact the health choices that patients make, it is reassuring to know that

PhytoLove **AHIFLOWER®** **Ahiflower® AUSTRALIA**

Nature's Richest Source of Omega-3

- A uniquely complete and balanced omega 3+6+9
- Regeneratively-grown, sustainable & vegan-friendly
- Neutral taste & smell

Available from

OBORNE HEALTH SUPPLIES **vital.ly**

naturalscript **Nutriscript** natural chemist

bespoke dispensary by Nutrisearch integrative pharmacy

www.phytolove.com.au
Always read the label and follow the directions for use



dietary and lifestyle modifications offer effective strategies for reducing inflammation. The growing body of scientific literature supports the use of *Buglossoides arvensis* (Ahiflower, Corn Gromwell) as an extremely beneficial therapeutic adjunct.

Financial disclosure: Camilla co-founded PhytoLove, a company with exclusive distribution rights to *Buglossoides arvensis* seed oil in Australia and New Zealand.

REFERENCES

1. Medzhitov R. Origin and physiological roles of inflammation. *Nature*. 2008;454(7203):428-35.
2. Hotamisligil GS. Inflammation, metaflammation and immunometabolic disorders. *Nature*. 2017;542(7640):177-85.
3. Fullerton JN, Gilroy DW. Resolution of inflammation: a new therapeutic frontier. *Nat Rev Drug Discov*. 2016;15(8):551-67.
4. Calder PC. Omega-3 fatty acids and inflammatory processes: from molecules to man. *Biochem Soc Trans*. 2017;45(5):1105-15.
5. Furman D, Campisi J, Verdin E, Carrera-Bastos P, Targ S, Franceschi C, et al. Chronic inflammation in the etiology of disease across the life span. *Nature Medicine*. 2019;25(12):1822-32.
6. Ridker PM, Hennekens CH, Buring JE, Rifai N. C-reactive protein and other markers of inflammation in the prediction of cardiovascular disease in women. *N Engl J Med*. 2000;342(12):836-43.
7. Esteve E, Castro A, López-Bermejo A, Vendrell J, Ricart W, Fernández-Real J-M. Serum Interleukin-6 Correlates With Endothelial Dysfunction in Healthy Men Independently of Insulin Sensitivity. *Diabetes Care*. 2007;30(4):939-45.
8. Brennan FM, McInnes IB. Evidence that cytokines play a role in rheumatoid arthritis. *J Clin Invest*. 2008;118(11):3537-45.
9. Seidel U, Eberhardt K, Wiebel M, Luersen K, Ipharraguerre IR, Haegele FA, et al. Stearidonic acid improves eicosapentaenoic acid status: studies in humans and cultured hepatocytes. *Front Nutr*. 2024;11:1359958.
10. Lefort N, LeBlanc R, Surette ME. Dietary *Buglossoides Arvensis* Oil Increases Circulating n-3 Polyunsaturated Fatty Acids in a Dose-Dependent Manner and Enhances Lipopolysaccharide-Stimulated Whole Blood Interleukin-10-A Randomized Placebo-Controlled Trial. *Nutrients*. 2017;9(3).
11. Lefort N, LeBlanc R, Giroux MA, Surette ME. Consumption of *Buglossoides arvensis* seed oil is safe and increases tissue long-chain n-3 fatty acid content more than flax seed oil - results of a phase I randomised clinical trial. *J Nutr Sci*. 2016;5:e2.
12. Laevski AM, Doucet MR, Doucet MS, LeBlanc AA, Pineau PE, Hébert MPA, et al. Dietary omega-3 fatty acids modulate the production of platelet-derived microvesicles in an in vivo inflammatory arthritis model. *Eur J Nutr*. 2024;63(6):2221-34.
13. Scalbert A, Johnson IT, Saltmarsh M. Polyphenols: antioxidants and beyond. *Am J Clin Nutr*. 2005;81(1 Suppl):215s-7s.
14. Grosso G, Stepaniak U, Micek A, Stefler D, Bobak M, Pajqk A. Dietary polyphenols are inversely associated with metabolic syndrome in Polish adults of the HAPIEE study. *Eur J Nutr*. 2017;56(4):1409-20.
15. Hussain T, Tan B, Yin Y, Blachier F, Tossou MC, Rahu N. Oxidative Stress and Inflammation: What Polyphenols Can Do for Us? *Oxid Med Cell Longev*. 2016;2016:7432797.
16. McMacken M, Shah S. A plant-based diet for the prevention and treatment of type 2 diabetes. *J Geriatr Cardiol*. 2017;14(5):342-54.
17. Craddock JC, Neale EP, Peoples GE, Probst YC. Vegetarian-Based Dietary Patterns and their Relation with Inflammatory and Immune Biomarkers: A Systematic Review and Meta-Analysis. *Adv Nutr*. 2019;10(3):433-51.
18. Goldner B, Staffier KL. Case series: raw, whole, plant-based nutrition protocol rapidly reverses symptoms in three women with systemic lupus erythematosus and Sjögren's syndrome. *Frontiers in Nutrition*. 2024;11.
19. Makki K, Deehan EC, Walter J, Bäckhed F. The Impact of Dietary Fiber on Gut Microbiota in Host Health and Disease. *Cell Host Microbe*. 2018;23(6):705-15.
20. Vitaglione P, Mennella I, Ferracane R, Rivellese AA, Giacco R, Ercolini D, et al. Whole-grain wheat consumption reduces inflammation in a randomized controlled trial on overweight and obese subjects with unhealthy dietary and lifestyle behaviors: role of polyphenols bound to cereal dietary fiber234. *The American Journal of Clinical Nutrition*. 2015;101(2):251-61.
21. Snauwaert E, Paglialonga F, Walle J, Wan M, Desloovere A, Polderman N, et al. The benefits of dietary fiber: the gastrointestinal tract and beyond. *Pediatric Nephrology*. 2022;38.
22. Irwin MR, Olmstead R, Carroll JE. Sleep Disturbance, Sleep Duration, and Inflammation: A Systematic Review and Meta-Analysis of Cohort Studies and Experimental Sleep Deprivation. *Biol Psychiatry*. 2016;80(1):40-52.
23. Besedovsky L, Lange T, Haack M. The Sleep-Immune Crosstalk in Health and Disease. *Physiol Rev*. 2019;99(3):1325-80.
24. Prather AA, Janicki-Deverts D, Hall MH, Cohen S. Behaviorally Assessed Sleep and Susceptibility to the Common Cold. *Sleep*. 2015;38(9):1353-9.
25. Gleeson M, Bishop NC, Stensel DJ, Lindley MR, Mastana SS, Nimmo MA. The anti-inflammatory effects of exercise: mechanisms and implications for the prevention and treatment of disease. *Nat Rev Immunol*. 2011;11(9):607-15.
26. Scheffer DDL, Latini A. Exercise-induced immune system response: Anti-inflammatory status on peripheral and central organs. *Biochim Biophys Acta Mol Basis Dis*. 2020;1866(10):165823.
27. Woods JA, Wilund KR, Martin SA, Kistler BM. Exercise, inflammation and aging. *Aging Dis*. 2012;3(1):130-40.
28. Nieman DC, Wentz LM. The compelling link between physical activity and the body's defense system. *J Sport Health Sci*. 2019;8(3):201-17.
29. Slavich GM, Irwin MR. From stress to inflammation and major depressive disorder: a social signal transduction theory of depression. *Psychol Bull*. 2014;140(3):774-815.
30. Uchino BN, Trettevik R, Kent de Grey RG, Cronan S, Hogan J, Baucom BRW. Social support, social integration, and inflammatory cytokines: A meta-analysis. *Health Psychol*. 2018;37(5):462-71.
31. Robles TF. Annual Research Review: Social relationships and the immune system during development. *Journal of Child Psychology and Psychiatry*. 2021;62(5):539-59.

JOINT PAIN?



REPAREN JOINT CARE+



Supports joint mobility & flexibility

Eggshell membrane powder - NEM®



Supports tendon health; healthy ligaments & joint cartilage production

Silicon - Mesoprosil®



Relieves symptoms of mild arthritis & mild joint pain

Eggshell membrane powder - NEM®



Contains MonoBasic Calcium Phosphate
with Mesoprosil® Silicon
and NEM® Eggshell membrane

SYNERGISTIC
FORMULA

NON
SYNTHETIC
COATING

EVIDENCE-
BASED

MINIMAL
EXCIPIENTS

QUALITY
INGREDIENTS

VEGETARIAN

Always read the label and follow the direction for use.
If symptoms persist talk to your health professional.



FEEL THE DIFFERENCE TODAY



Scan to register as a practitioner
interclinical.com.au/register



Scan for more information
on **our products**

02 9693 2888 info@interclinical.com.au
www.interclinical.com.au



How to improve your flexibility and range of motion

Brad Walker | stretchcoach.com

One of the most common questions I get asked is: *How do I improve my flexibility? I've tried everything and no matter what I do I can't increase my flexibility past a certain point.* Does this sound familiar? Is your flexibility stuck, and nothing you do makes any difference?

If so, don't panic. This is quite normal. In fact, it's very common with all aspects of physical fitness, not just flexibility. Athletes from all different sports often talk about reaching a "plateau," where one aspect of their fitness seems to get stuck.



Fortunately, there are several things you can do to increase your flexibility: even if you feel like you've tried everything. Read through the 7 best tips below; they're guaranteed to smash through that plateau and take you to a whole new level of flexibility.

1. Injury Equals Poor Flexibility

Injuries, whether tears, sprains, strains, aches, pains, niggles, twinges, or sore spots, will quickly put a stop to your flexibility hopes and dreams.

Any time you have an injury of any kind (even one you don't realise you've got), your body recognizes that as a weak link in the chain and will tighten the surrounding muscles.¹ This is your body's protective defence mechanism to prevent further damage to the injured tissues and their surrounding structures.

This is not limited to the tissues that have been injured. An injury in your back, for example, will often prevent you from improving flexibility in your hamstring or calf muscles. An injury to your hips or knees may prevent you from improving flexibility in your shoulders or upper back.

Tip #1: Work hard to get rid of all injuries, including tears, sprains, strains, and especially aches, pains, niggles, twinges, and sore spots.

2. Mobilise and Manipulate, then Stretch

To get the best results from stretching it's important that the joints and associated soft tissues are prepared for the stretching

they're about to receive. To do this use gentle mobilisation exercises and joint manipulations before stretching.

These can include traction (gentle pulling on a limb or body part to open up the joint), vibration, shaking, joint rotations, massage (with your own fingers, a lacrosse ball, a massage stick, or other massage tool), trigger point work and foam rolling.

Tip #2: Loosen up the joint and surrounding tissues first with gentle mobilisation and joint manipulation before stretching.

3. Strength complements Flexibility

You may be thinking: What's strength got to do with flexibility? Well, quite a bit. In fact, strength and flexibility are very much related. Or should I say, interrelated.

The flexibility of a muscle is very dependent on the strength of that muscle: especially, strength at the end ranges of motion.² It's as though your body won't let you go past a certain level of flexibility until it knows you have the muscle strength to handle that improved range of motion.



Muscle strength is critical to joint stability, so if you're trying to improve your flexibility around a particular joint, but the muscles that stabilise that joint are weak, all you're doing is making that joint more vulnerable to injury.

Tip #3: Work on strength as well as flexibility. As the strength of your muscle improves, especially at the end ranges of motion, so will your flexibility.

4. Types of Stretching

There are many different types of stretching (or ways to stretch), and all of them have their advantages and disadvantages.³ Some are more suitable for warming up; some are better for injury rehabilitation; while others are great for athletic improvement.

Dynamic stretching, for example, is great for warming up and assisting athletes involved in sports that require fast ballistic type movements. But dynamic stretching is not the best choice for improving flexibility. So which types of stretching are best for improving range of motion?

Static stretching is by far the best form of stretching for improving your flexibility and range of motion. In particular, long hold static stretching (held for longer than 30 seconds) and PNF (proprioceptive neuromuscular facilitation) stretching. Static stretches are stretching exercises that are performed without movement. In other words, you get into the stretch position and hold the stretch for a specific amount of time.

Tip #4: Long hold static stretching and PNF stretching are the most effective forms of stretching for improving your flexibility quickly and permanently.

5. Variety of Stretches

There are hundreds of muscles in the body and it's not uncommon for one muscle group to be made up of two, three or more smaller muscles. And they're all somewhat interconnected to each other.

Tight hamstrings can cause lower back problems; tight hip muscles can lead to knee pain; and tight chest muscles can cause upper back pain.

If you're trying to improve the flexibility of your hamstrings, for example, then you need to be doing as many different hamstring stretches as you can think of.

This advertisement is available only to ATMS Accredited Members in accordance with the Therapeutic Goods Advertising Code.



You need to do hamstring stretches with your leg out in front, and with your leg out to the side. You need to do hamstring stretches with a bent knee, and with a straight knee. You need to stretch both legs at the same time, and you need to stretch one leg at a time. You need to vary the position of your hips, and you need to vary the position of your feet.

And if you really want to improve the flexibility of your hamstrings, you need to stretch your lower back, your buttocks, your hips, your groin, and your calves.

Tip #5: Don't do the same old boring stretches all the time; include a variety of stretches for all your muscle groups.

6. When to Stretch

Stretching before exercise or as part of your warm-up is great, but pre-exercise stretching is not meant to improve your flexibility; its purpose is simply to prepare you for exercise.⁴

So, if you want to improve your flexibility, when is the best time to stretch?

One of the best times to stretch is about 2 hours after your work-out. This is when your muscles have had some time to recover, but are still relatively warm and pliable, which makes it much easier to stretch and reach new levels of flexibility.

Another great time to stretch is just before going to bed. This works at a neuromuscular level, as the increased

muscle length is the last thing your nervous system remembers before going to sleep. Sleep is also the time when your muscles and soft tissues heal, which means your muscles are healing in an elongated, or stretched, position.

Tip #6: Do most of your flexibility training about 2 hours after your workouts, or late in the evening. This will help to improve your flexibility on a more permanent or longer-lasting basis

7. Hydration, Nutrition and Sleep

A lot of this goes without saying, but increased hydration, good nutrition, adequate sleep, and good emotional health are vital for good flexibility and good health in general.

Muscles are made up of about 75% water, so to keep muscles and associated soft tissues supple and flexible stay hydrated. Eat 100% certified organic fruits, vegetables, and meats. Cut out processed food and eliminate as many additives and preservatives as you can. Eat slowly and chew your food. You shouldn't just eat food for the sake of eating; you should enjoy and savour every mouthful.

Aim to get 9 hours of good quality sleep a night. I know that may seem unrealistic but try to aim for that. You'll be surprised what a good sleep will do for you. And take care of your mental and emotional health.

Tip #7: Your general health and well-being are vital to your fitness and flexibility; keep hydrated, eat healthily and get adequate sleep.

REFERENCES

1. Behm D. *The Science and Physiology of Flexibility and Stretching*. New York: Routledge; 2019.
2. Starrett K, Cordoza G. *Becoming a Supple Leopard, 2nd Edition*. Las Vegas: Victory Belt Publishing; 2015.
3. Lucas R, Koslow R. *Comparative Study of Static, Dynamic, and Proprioceptive Neuromuscular Facilitation Stretching Techniques on Flexibility*. *Percept Mot Skills*. 1984 Apr;58(2):615-8. doi: 10.2466/pms.1984.58.2.615. PMID: 6739253.
4. Walker B. *The Anatomy of Stretching, 2nd Edition*. London: Lotus Publishing; 2011.

About the Author: Brad Walker is often referred to as the "Stretch Coach" and has even been called the Stretching Guru. Magazines such as *Runners World*, *Bicycling*, *Triathlete*, *Swimming & Fitness*, and *Triathlon Sports* have all featured his work. Amazon (author page) has listed his books on five Best-Seller lists. Google cites over 100,000 references to him and his work on the internet. And satisfied customers from 122 countries have sent 1,000's of verified customer reviews. If you want to know about stretching, flexibility or sports injury management, Brad Walker is the go-to-guy.



Script across the ditch
with Nutriscript.

With same day dispatch & orders
arriving in 2 business days*

— it couldn't be easier to service
both AU & NZ patients.

CREATE FREE ACCOUNT

*When ordered before
4pm on a week day.

 Nutriscript



Join over 2,000
Practitioners &
experience the
difference.

Scan the QR code or
visit nutriscript.co.nz



CALL FOR PRESENTATION ABSTRACTS 2025 ATMS ANNUAL CONFERENCE

We are pleased to announce that abstract submissions for oral presentations at the ATMS Annual Conference are now open. You are invited to submit an abstract for review and possible presentation at the **ATMS Annual Conference in Sydney on Saturday 8th November**. All abstract submissions should align with one or more of the ATMS-accredited modalities (<https://www.atms.com.au/about/modalities/>). The oral presentation duration is 15 minutes.

WHAT IS A CONFERENCE ABSTRACT?

A conference abstract is a brief, clearly written summary of the specific ideas or concepts to be presented at the conference. It can describe traditional academic research or practice-based research.

THE REVIEW PROCESS

Before being accepted for an oral presentation, abstracts are peer-reviewed by a committee consisting of conference organisers and reviewers. Abstracts will be considered based on the quality of the submission in terms of its relevance to an ATMS-accredited modality, focus and clarity, and its originality.

PUBLICATION AND AWARDS

All abstracts submitted and accepted for oral presentations will be published in the online ATMS Conference Abstracts Book. Full papers may be submitted to the Editor, Journal of the Australian Traditional Medicine Society, for consideration of publication in the Journal of the Australian Traditional Medicine Society. Additionally, all oral presentations will be considered for the Best Oral Presentation Award.

ABSTRACT SUBMISSION GUIDELINES

All abstracts are to be submitted through the online submission form via the following link:

<https://www.atms.com.au/submit-your-abstract/>

All abstracts and presentations must be submitted in English.

- Abstract title to be a maximum of 20 words.
- Abstracts have a maximum of 300 words.
- Presenting Author name and contact details.
- Presenting Author biography is to be a maximum of 150 words.



Submit your abstract by **Friday, 20 September 2025, 5 pm AEST**.

Please note that any abstracts submitted after this date will not be accepted for the conference.





Demystifying iodine: *Insights for thyroid and hormonal health*

with Dr Miranda Myles

Dr Miranda Myles, is director of Freyja Health, one of Melbourne's leading natural health and fertility clinics. She is an integrative naturopath, clinical nutritionist and acupuncturist, and founder of the Thyroid Institute of Australia. The fx Medicine podcast from which this article is adapted explores clinical prescribing and use of iodine in addressing thyroid and hormonal health. It was hosted by Emma Sutherland from fx Medicine. This article is published with the kind permission of fx Medicine.

Emma: First, to provide some context for iodine therapy: In 2003, the national iodine nutrition study measured the iodine status of Australian schoolchildren, and the results showed that they were mildly iodine deficient. In the 2011 national data set, women of child-bearing age showed the highest level of deficiency, with 18% of women having lower than 50 microgram per litre levels, and a huge 62% having levels below 150 microgram per litre, which is the iodine level recommended by the World Health Organisation for pregnant and breastfeeding women.

Miranda: Yes. Our thoughts about iodine need to be challenged.

Emma: Can you explain what iodine is and what its role is in the body?

Miranda: Most of us know that quite simply iodine is the main mineral to make our thyroid hormones. It actually starts off its life as iodide in the blood, which is transported to the thyroid

lumen and gets converted to iodine by an enzyme called thyroid peroxidase enzyme. And that's an iron-dependent enzyme.

So, our first requirement is iron, to make sure iodine is being made, so that it can be attached to tyrosine. Then one or two iodine molecules attached to a tyrosine molecule in the thyroglobulin chain, that makes T1 and T2, which then couple to make T3 and T4, which are then shunted out into the bloodstream.

I think the really important thing with this, to begin with, is that there's actually no circulating level of iodine in our blood. In this medium we are dealing with iodide. (Iodine itself is actually quite corrosive and can cause blistering or skin necrosis.) The only place we find iodine in the human body is within the follicles of the thyroid gland. And even here, it can be a bit of a liability if there's too much. So: iodine, iodide. It's iodide in the blood, and it gets iodised to iodine in the thyroid gland.

Emma: I think we use those words interchangeably really, don't we?

Miranda: Yes. And then there's iodate as well. But basically, iodide, iodine, iodate, they all ultimately wind up as iodide in the blood, and then as iodine in the thyroid.

Emma: And what about halogens?

Miranda: Yes, there are the other halogens: chlorine, which we find in water, fluoride, which we also find in water and toothpaste, bromine in bread, and then iodine in bread and salt. I've always been taught is that those other halogens in the periodic table are all in the same line and they all displace or compete with each other. So they displace iodine. There has been recent conjecture about this, although fluoride and iodine most definitely do seem to be competing. But now there's some questioning over whether the amount of chloride that we ingest, or that we're exposed to, is enough to actually displace iodine. And I can't give a definitive answer to that at the moment.



There's also a study that showed that bromine in doses more than 300 times the normal levels produced no changes for TSH or T₄ or thyroid-binding globulin, which you would expect there to be if it was affecting iodine.

Emma: So, we can accurately say that fluoride will displace iodine but that there are questions about chloride and bromide.

Miranda: Yes.

Emma: Okay. More research needed, right?

Miranda: Yeah, absolutely.

Emma: And what are the factors that drive low iodine levels that you see?

Miranda: So, there's topsoil depletion. We're not replacing that topsoil. There used to be the use of iodophor, which is a disinfectant used in both the dairy and the brewing industry, but that's actually not being used anymore, so we've lost that indirect source. It's not being used as a fertiliser anymore in commercial agriculture.

We've always talked about environmental goitrogens as well, that environmental goitrogen blocks the uptake of iodine.

And I think about that a lot, and it's like, yeah, but is that enough to be clinically relevant? Because we find those goitrogens in some of our leafy green vegetables, which are just so incredibly important for health generally. Are they really a major problem or are they like just a bit of a one-percenter? Because as we know, you cook the vegetables and there's no problem, right?

Emma: Mm, that's true.

Miranda: The goitrogens aren't an issue anymore. So, I do think about that a lot, comparing it to something like the phthalates, or the parabens, or the phenols, or the BPAs, which are so much stronger than any sort of vegetable-based thiocyanates or goitrogens. So, I question that a little bit sometimes.

Emma: Yes, and I think it's also about weighing up the pros and cons. I mean, when you're looking at broccoli and all these beautiful vegetables, are they a problem? Probably not.

Miranda: Exactly. In the bigger picture, comparative to everything else, it's interesting. And then of course, as we know, Australia introduced the iodisation of bread in 2009, and we did see a modest increase in the median urinary iodine concentration with that,

particularly in pregnant women. And that public health initiative of iodine fortification in bread was based on people eating three slices of commercial non-organic bread a day.

So, when you look at that, all right, what level of the population is eating three slices of commercial non-organic bread a day? Most of the population would be eating that. So, I think our patients don't because we'd be putting them on organic bread, if anything. But for the rest of the population eating three slices of commercial bread a day plus some sacks of table salt, which has also been iodised, many people would be actually getting more iodine than, say, our population group, our patients.

Emma: Is there a patient demographic that's a particular risk of having low iodine levels? Which patients should we keep in mind for this?

Miranda: Women are at higher risk than men of being iodine-deficient. That's hormonally driven, given the connection between thyroid, ovaries, and adrenals. And of course pregnant women in particular have the higher need - to sustain the foetus. In the first trimester of pregnancy, the foetus relies solely on the mother's thyroid hormones for its own thyroid development and

Introducing



Unlock exclusive resources and clinical tools, stay ahead with the latest research, and enhance your patient care

Join our growing community:

Join our exclusive Facebook group "PracConnect Community" to start networking with like-minded professionals and get early access to discussions and resources.



@pracconnect



brought to you by



www.pracconnect.com



iodine supply, after which they start to produce their own thyroid glands. So, definitely in that first trimester, we can see risks and then also again in the third trimester which is when there are massive amounts of foetal growth. And breast tissue development makes a greater call on iodine supply, then obviously for breastfeeding and keeping on moving forward with needing that iodine supply during pregnancy.



IN THE FIRST TRIMESTER OF PREGNANCY, THE FOETUS RELIES SOLELY ON THE MOTHER'S THYROID HORMONES FOR ITS OWN THYROID DEVELOPMENT AND IODINE SUPPLY, AFTER WHICH THEY START TO PRODUCE THEIR OWN THYROID GLANDS.

Then there are hypothyroid individuals, who are also at an elevated risk of low iodine levels, and lean women generally tend to have lower levels of iodine than obese or women with a higher BMI.

Emma: Ah, so that's a key insight.

Miranda: Yes, particularly because we tend to think about lean women as being healthier and that's not always the case, is it?

Emma: And are there other patient demographics who might be at risk of acquiring or already having high iodine levels.

Miranda: Yes. And I think this is really interesting: there are particular medications that can increase iodine levels, and one of the big ones is amiodarone, a 200 milligram tablet of which contains about 75 milligram of iodine.

Emma: That's so much!

Miranda: Yes, it's really high, and amiodarone is a blood pressure medication, and therefore in widespread use. And then in the fertility and IVF worlds, we have to take into account the number of women getting lipiodol flushes. Lipiodol is an iodised poppy seed oil that's being injected into the uterus, into the fallopian tubes to flush the tubes and to check tube patency infertility. So, it's like hysterosalpingo-contrast. One 10-ml ampoule of lipiodol contains around 4,800 mg of iodine. And the total RDA of iodine even for pregnant women is 200 to 220 mg. Two ampoules of lipiodol are routinely administered: up to 9,600 mg of iodine.

Emma: My goodness. So, do you think that those effects are transient, or could they be problematic?

Miranda: Well, you would hope that they're transient, wouldn't you? That once a woman has undergone a lipiodol flush, then we'd be hoping that if they have a sensitivity or a susceptibility to effects with iodine, we would be hoping

that they would then just normalise again. But who knows? Maybe it triggers off a whole new set of events.

Emma: That's right!

Miranda: And that's the thing that we don't really know. I mean, lipiodol flushes have not been around for a long time or not commonly used for a long time. And I know some of the IVF specialists are quite aware of the potential increase in iodine they cause, and so of the potential effects on T4 and the thyroid. And then there's Betadine.

Emma: Yes, Betadine. The topical, the surgical antiseptics. It also makes me think that the timing of testing with patients who have had exposure to iodine in these ways would be critical.

Miranda: But I don't think that we necessarily clinically even think about some of this. We wouldn't necessarily think to ask a patient, "Did you fall over yesterday and put betadine on your knee before they're going in for a urine analysis of iodine?" These are the sort of things that are no doubt routinely missed.

Emma: Yes, so often and I would put my hand up for that because it's not something that's on my radar.

Miranda: And not forgetting your other contrast dyes that are used in X-rays and CT scans. I think some of those contrast dyes can contain around 37 grams of total iodine and that's high. These are high levels. Particularly when iodine is in microgram doses, we're talking milligrams and grams.

Emma: Yes, exactly. And don't forget that 2010 Bonsoy dilemma. We've been in practice long enough to remember that.

Miranda: Yes, absolutely.

Emma: For those of you that are not aware, the soy milk brand Bonsoy was formulating their soy milk with a Kombu seaweed extract. And unfortunately, that



resulted in really high levels of iodine in a particular batch, and I definitely had one patient who went hyperthyroid due to her intake of Bonsoy. That has since been reformulated but at the time it triggered a class action. So, food really does make a difference as well.

Emma: What are the symptoms of iodine deficiency that you see in clinic? What would be, say, your top five symptoms that we need to keep in mind?

Miranda: Okay. So, when we think of the typical sluggish thyroid picture, we always tend to go to unexplained weight gain, cold sensitivity, hair loss and all of those really typical symptoms.

But if there are signs of PCOS or fibrocystic breast disease, they are really definitive indicators of an iodine deficiency. Then we also have also have

things like dry mouth, dry eyes, dry skin, poor sweating, reduced alertness, scar tissues, any sort of scar tissue, fibrosis, obviously low T4 clinically if we're looking at bloods, and then a swollen thyroid, because of course the thyroid gland expands to try to pick up as much iodine as it can when the iodine is low. This is where you can get that swollen thyroid or a goitre going on.

Emma: And what are some clinical white flags for iodine insufficiency that we can keep in mind?

Miranda: One is particularly a low end of T4: I'm thinking about an iodine deficiency when T4 gets below 14. Some people pick it up at below 12, but I'm already starting to think about it if it's lower than 14. And that's because in a Western society where we have iodised salts and iodine-supplemented bread and

most of the population is eating those things the T4 bar should be higher.

So, if a new patient comes to me with low T4, I'm thinking, "It shouldn't be the case. It really shouldn't be the case." Of course, some patients may not have had T4 tested. So, I'm looking for that increase in TSH (thyroid-stimulating hormone) as well, remembering that if TSH is going up, then T4 or T3 are going down, and that's a white flag for me as well, seeing that raised TSH means something is happening at the clinical or subclinical level with your T3 and T4, so that's definitely a flag for me.

Basal body temperature, particularly in the luteal phase, if I see it below 36.3, is another flag for me. I know lots of people pick it up at 36.1, but I'm alert to your basal body temperature dropping below 36.3 consistently in the luteal phase. Basal body

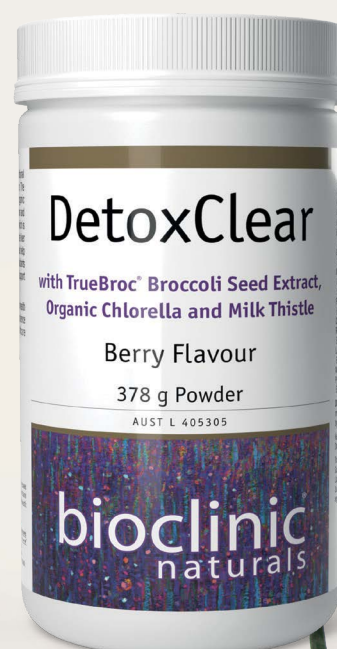
DetoxClear

DetoxClear is a herbal and nutritional formula that helps support natural body detoxification. TrueBroc® broccoli seed extract and organic chlorella are involved in supporting liver function and detoxification. DetoxClear also contains milk thistle which is traditionally used in Western herbal medicine to protect the liver and enhance bile secretion. The nutritional ingredients also help support healthy immune system function and act as antioxidants to help reduce free radical damage to body cells and support tissue repair.

Product Overview

- Highly concentrated powder with herbs and nutrients that help support liver detoxification.
- Contains **TrueBroc® broccoli seed extract** and organic **chlorella** powder for supporting the body's natural detoxification.
- Contains **Sunphenon™ green tea extract** and **LipiSpurse® Quercetin CWD 90** for antioxidant support.

bioclinic®
naturals





temperature in the luteal phase should really be up around 36.6 and higher.

Emma: These are fantastic white flags for low iodine, I also want to delve into testing because it is such a minefield.

Miranda: Oh yes, it's a minefield!

Emma: We have had many years of clinical practice. We have seen the patch test, and the spot urine versus the 24-hour debate over the iodine loading test. But can you talk us through what tests you use and any caveats for ensuring the most accurate results? And then can you explain what corrected iodine is?

Miranda: The iodine spot versus a 24-hour - let's look at that first. The 24-hour is preferable but practically it's quite tricky to be checking every urine sample over a 24-hour period. Urine is reflective of iodine intake over the previous 48 hours, and the understanding is that approximately 90% of iodine is excreted in the urine.

Then, I did look at the iodine loading test where the patient has that massive dose of iodine and then has urine collected for the next 24 hours, and the patient is considered iodine deficient if less than 90% of the administered dose is excreted. That is the whole iodine loading, or the whole challenge test.

But urinary iodine levels can take weeks or months to reflect changes. And some of the research I looked at showed that it's usually at that 30-hour point that we get the biggest dump of iodine excretion in the urine. So, you've missed it if you're only testing up to 24 hours.

So, then I think the most important thing when we're getting a urinary iodine done is that it is corrected. And that means that the iodine that's measured in micrograms is divided by creatinine in millimoles, and that's to account for any dehydration, and then multiplied by 8.85. That is the corrected iodine in micrograms that we actually need. A lot of labs don't actually do that.

They generally do the iodine divided by creatinine, but it's whether they then multiply it by 8.85 that counts. That's what gives the most accurate testing, although no tests are actually 100% accurate.

So, it's incumbent on us as practitioners to, first, make sure that corrected iodine is being measured and, secondly, ring the lab to double check. I've found pathologists very happy to respond to this.

Emma: And with that urine testing for iodine, are there any caveats around when they should do it? What do you tell your patients?

Miranda: Okay, can I return to that one in just a second? Because one other thing I just wanted to say about creatinine is that we want to be measuring the patient's own creatinine levels, because some of the labs use a median creatinine instead of the patient's own actual creatinine value. So, again, it's making sure we have the iodine divided by the patient's own creatinine level and then multiplying that by 8.85. To return to your question, we would do a fasting morning, in the first morning void. And the question is, do we need to avoid particular high-iodine foods? I don't do this, simply because I want to know what's going on in patients' normal routines.

Hydration status is really important though, and then, as we talked about, that measurement for creatinine to account for any hydration issues as well. Sometimes the readings can come out a little bit odd. So, hydration is really important when we're looking at these measurements. It's a test that can give us so much important information about the thyroid and some of the other things we'll get into as well.

Emma: Before we dive into dosage and forms, I want to just quickly touch on the RDIs, because the recommended daily iodine intake is 150 micrograms in adults who are not pregnant or lactating, while all pregnant women should

consume approximately 250 micrograms of iodine per day. What do you think of those as a guide?

Miranda: What I find really interesting is the 250 micrograms daily recommended in pregnancy. We know that pregnancy is your thyroid's greatest stress test. We also know that, in pregnancy, thyroid antibodies can do all sorts of amazing things. Or, if a pregnant woman has not had her thyroid antibodies checked pre-pregnancy and does have pre-existing and existing thyroid antibodies during pregnancy, how do we feel about a dose of 250 micrograms of iodine or up to 270 micrograms of iodine in our prenats? Because as we know, iodine makes thyroid antibodies more aggressive.

And yet in pregnancy, the foetus, as we talked about earlier, particularly in the first and third trimesters, needs that iodine supply for brain development, particularly in the first trimester, so where do we sit with that? There's a lot of iodine in seafood, and so we talk a lot about salmon for our patients. Seeing that we can get such a high exposure of iodine from diet alone it's making me really question supplementation levels now.

So, 150 micrograms of iodine is required for adequate thyroid hormone synthesis. That's a day. The median levels range between 100 to 199. And then in some of the research we were looking at whether 200 to 300 micrograms presents a risk of iodine-induced hyperthyroidism in susceptible groups. And then, would over 300 increase that risk? So, it's really interesting, the pregnancy thing.

Emma: Yes, it is, because we all just apply a generic recommendation and provide our pre-conception and pregnancy patients with standard pre-conception and pregnancy supplements with dosages of around the 270 micrograms. And what might be the cumulative effect here of supplementation plus dietary source if a woman has thyroid and positive



antibodies. What risks may we exposing her to?

Miranda: The biggest risk is obviously of increasing the antibody load. A patient of mine recently had thyroid antibodies, and she was on iodine. And more than a normal dose of 270 micrograms. And it did eventuate that her baby was born with thyroid antibodies.

But also it's not even so much about what happens in pregnancy but more about that postpartum period. If you have driven those antibodies up really high, we're then, of course, at risk of thyrotoxicosis or postpartum thyroiditis where we wind up with a hyperthyroidism at around the three to six-month point postpartum, and then a big crash into hypothyroidism somewhere around that six to nine-month point.

I can immediately think of at least five patients that I have seen in the last six months with postpartum thyroid issues, all presenting at around that six-month mark. And I think, if we dial back and look at the iodine story, it may not be the only thing going on, but I think we really need to challenge our thinking here.

Emma and Miranda concluded the podcast with a discussion of a 2023 study of the relationship between urinary iodine and testosterone levels in a large group of men aged 18 to 65, There were some significant findings that fall beyond the scope of this article, but which Miranda characterised as "another argument of going, well, we need to be checking iodine status in men and testosterone status in men in that preconception period."

Emma: Today, Miranda, I have taken away many clinical pearls. A couple of my top favourites are white flags for low iodine, include a T4 under 14, and increase in TSH above 1.5 to 2 as a trend and a basal body temperature under 36.3 in the luteal phase, and how critical it is to find that Goldilocks' zone with iodine and knowing that we do prescribe it in certain conditions that you've outlined and then don't prescribe it for other conditions. That gives us a really clear picture, so thank you.

All the show notes, full transcript, and other resources from today's episode are available on the fx Medicine Education Podcasts website ([https:// www.bioceuticals.com.au/education/podcasts](https://www.bioceuticals.com.au/education/podcasts)).

MyScript^{Rx}

WWW.MYRENER.COM.AU



Your Seamless Solution for Online Patient Prescribing

Delivering your patients online prescription orders right to their doorsteps!

SIMPLE TO USE



An intuitive online system that ensures you can easily create your patient scripts and your patients' receive their prescribed products without stepping out.

EXCLUSIVE PRESCRIBING



Registered practitioners can prescribe from an exclusive selection of top-tier, practitioner only brands.

RETAIL ACCESS FOR PATIENTS



Empower your patients with the freedom to also explore & purchase from our retail range at RRP, delivered straight to their door.

TIME SAVING



MyScript's efficient packing & dispatch system means orders are delivered promptly to your patients.

INCREASE YOUR CASH FLOW



Improve your cash flow & say bye to the need for a physical product dispensary. Set your markups on practitioner brands or opt for the default RRP set by Rener's system.

DESIGNED & BROUGHT TO YOU BY

Rener Health

PRODUCTS

Natural Health, Nationwide - Experience the Rener Difference!

Rener Health Products is a family owned Australian distributor, offering 250+ leading practitioner brands & 8,000+ natural health products.

With a team of qualified practitioners, we provide exceptional service supporting practitioners nationwide with quality, variety and care.



ONLINE ORDERING
WWW.MYRENER.COM.AU



EMAIL
ORDERS@RENERHEALTH.COM



PHONE
1300 883 716



Convalescence

Airdre Grant

This article is reprinted with the kind permission of the Australian Journal of Herbal and Naturopathic Medicine.

Illness is the night side of life, a more onerous citizenship. Everyone who is born holds dual citizenship, in the kingdom of the well and in the kingdom of the sick. Although we all prefer to use the good passport, sooner or later each of us is obliged, at least for a spell, to identify ourselves as citizens of that other place.

Susan Sontag 1988

I have two friends who encountered strong illness. These competent, capable women were felled by lengthy, hard-to-diagnose sicknesses. The maladies had them in and out of hospitals, required them to stay in their houses, in their beds, for months.

They did not like it. They didn't like the feeling of powerlessness. They had to ask for and accept help, to relinquish control of their lives, stay put. They both struggled with feeling weak, frightened, and learning how to yield and accept that this was the only way through the swamp.

Both these women had entered the kingdom of the unwell.

Illness can be particularly galling for those who are used to being in charge, used to having a good degree of agency over their lives. But illness does not take instruction from the anybody, from the cleverest person to the frailest. It takes its own path, one that diagnosticians work hard to try to keep up with.

Friends and family gathered around these women, anxious, wanting to help. People prayed for them, visualised, sent

healing light, provided supplements, crystals, food, herbs, gave lots and lots of excellent advice. Still the illnesses held sway. This was serious business. Modern medicine used all the tests and machines it had chasing diagnosis and treatment. Strong medicines were prescribed. Time passed and the women began to slowly recover. They both set about resuming their lives. They got out of their beds, started taking on tasks, lifting things and assuming responsibilities, only to be felled by resurgence of the weakness and body upset. Like snakes and ladders they thought they were home when whoosh, they went down a big snake and were both sent back to their beds. They tried to hurry through recovery, to 'get back on the horse.'

Which leads me to convalescence. This vital stage of the recovery process should not be overlooked. It cannot be hurried. It must be respected. The consequences of not obeying the need for convalescence can and will be felt. Illness demands that you listen to your body. You must obey its needs. Both women were healers. One worked as a body therapist, the other a social worker. They knew the importance of convalescence. Yet as is common with many healers, they failed to take their



own advice. And they suffered. The illnesses took more time, their health on all levels of body and psyche took a dip. They became gloomy, worried about themselves. Healing took months longer and, in that time, they made internal shifts and considerations they may have otherwise avoided or overlooked. They both came to realisations about the way they approached all their relationships, personal and professional. They made big changes in their lives. The painful path of illness and recovery, yielded rewards for them they were not expecting, were not looking for and did not know they needed.

The origin of the word convalescence is the Latin *valescere*: which means "to begin to grow strong." It means the period in recovery where a person gets over the body disruption of illness.

The period of convalescence should be at least equal to, if not more than, the duration of illness. Convalescence is a vital time. A practitioner needs to stress this. The simple naturopathic principles of rest, sunshine, fresh air are wonderful places to start.

Everybody has a different tempo for their convalescence, just as everybody's illness is singular. The process is slow and can manifest in different ways, including things such as breathlessness, insomnia, melancholy and stiffness, a sense of general malaise, despair. These complex gifts of darkness are all part of the process. Practitioners can support the patient through convalescence with all the tools of supplements, herbs, dietary and other wholesome advice. But perhaps one of the most important remedies is that of emotional support and encouragement to trust the body as the vital force is restored within.

It is tempting, as a practitioner, to want to heal or fix patients, to want them to 'get better' quickly, but supporting convalescence and encouraging patients to honour their healing, even when it's slow and requires stillness, is a valuable, critical professional task. The deep work

of recovery, if not done in this time, often reappears in another form. A friend told the story of having a serious illness, after which he rushed back to work, only to encounter dark depression which sat with him for months. "I didn't take the time to understand what had happened to me. I didn't see how the illness had changed me. I didn't acknowledge the ordeal my body had gone through, and I failed myself in a deep and subtle way. I took a long time to really get over what had happened. I just didn't see that there was a cellular level of distress which needed to be healed," he reported.

THE PERIOD OF CONVALESCENCE SHOULD BE AT LEAST EQUAL TO, IF NOT MORE THAN, THE DURATION OF ILLNESS. CONVALESCENCE IS A VITAL TIME. A PRACTITIONER NEEDS TO STRESS THIS.

In the olden days, there were convalescent hospitals, where patients were given time to heal. It was understood that bodies need a special space and time to recover from severe body disruption – at any level – before re-entering the hurly-burly of daily life. While not everybody has a place where they can rest deeply and gaze upon the mountains, breathing crystalline, alpine air or watching the gentle pulse of a lake, an uninterrupted place in the sun can offer holistic solace. A remedial retreat of some kind can be restorative. Time is curative.

Both women took the lesson they had been given, returned to their homes and their beds, allowed others to assume responsibilities for them and waited until they were properly ready to return to

daily life. They stopped resisting. Both were humbled by their illness experience and both said they would be better people and better practitioners because of it.

The process of illness, especially deep illness, is one that involves all layers of the body, psyche, and spirit. A practitioner's work is clear in the beginning, to approach the physical, clear away obstacles to enable vital force. But deeper illness requires a different approach. When there is a powerful body upset and the spirit is damaged, another kind of therapeutic respect needs to take place to enable healing on an energetic level. Convalescence is an essential way in which the subtle energies of the body can be rebuilt. The tools here are stillness, gentle nurturing, digital abstinence, sunlight, fresh air, and as much peace as can be mustered to support the patient, along with all the supporting medicines and therapies.

Convalescence is in the holistic practitioner's toolbox. It needs to be advocated for, and the importance of it to be explained well. People can be resistant to the concept of staying still, and feel a need to jump back into their life and all its responsibilities and distractions. They may consider convalescence an indulgence, but it is so much more than that. It is critical and if overlooked, can mean incomplete healing and a wobbly recovery. As Sontag notes, everybody has a passport to the kingdom of the sick. Understanding the nature of that citizenship is to deepen self-knowledge, respect for vital force and learn about the body and what it is that really matters in this crazy journey of life.

The women needed to learn about the critical value of convalescence. This vital stage of the recovery process should never be overlooked. It cannot be hurried. It must be respected. The consequences of not obeying the need for convalescence can and will be felt. Illness demands that you listen to your body. You must obey its needs.



An update on research in Homeopathy

Robert Medhurst | BNat ND DNutr DRM DBM DHom



According to the current understanding of pharmacology, homeopathy can't work.

For some people who demonstrate a somewhat narrow understanding of the world around them, this translates to, it doesn't work. This notion arises primarily from the fact that the amounts of physical material contained in some of the medicines used in homeopathy are too small to be pharmacologically active. This is a little like saying that a recording on a CD of the works of JS Bach contains nothing but plastic and aluminium. Homeopaths are energy-based medicines. It's little wonder that a chemical analysis will fail to find active ingredients in a homeopathic product. Regardless of the plausibility of the activity of highly diluted medicines, a large body of experimental evidence exists that attests their clinical effects and what follows are some recent examples of this work.

Human Research

1. Danno K, Duru G, Vetel JM. Management of Anxiety and Depressive Disorders in Patients \geq 65 Years of Age by Homeopath General Practitioners versus Conventional General Practitioners, with Overview of the EPI3-LASER Study Results. *Homeopathy*. 2018;107(2):81-89.

This work was carried out to determine if older adults diagnosed with anxiety and depressive disorders (ADD) who consult a general practitioner prescribing homeopathic medicines (GP-Ho) report less psychotropic drug use and are more likely to experience clinical improvement than those receiving conventional care. Socio-demographic and medical data and details of any medications prescribed

were collected at inclusion. Information regarding the patients' functional status (Hospital Anxiety and Depression Scale [HADS]) was obtained via a telephone interview 72 hours after inclusion, and at 1-, 3- and 12-months post-inclusion. Medication use and outcome were determined over a 12-month period. A total of 110 patients were recruited, and 87 (79.1%) with ADD (HADS \geq 9) at the 72-hour interview were evaluated (age range: 65-93 years, 82.8% female). Patients who consulted a GP-Ho were more likely to have clinical improvement after 12 months than those receiving conventional care (CC) via a GP. Patients who consulted a GP-Ho reported less psychotropic drug use and benzodiazepine use than CC patients.

2. Nakhooda F, Tsele-Tebakang T. A Pilot Study of Individualised Homeopathic Treatment of Chronic Constipation. *Hopathy*. November 17, 2018.

This was a case series conducted at the University of Johannesburg Homeopathy Health Training Centre over a 6-week period and was intended to determine the efficacy of individualised homeopathic treatment of people suffering from chronic constipation. Through purposive sampling, 10 people aged 18-50 years who met the Rome II criteria participated in the study. A selection questionnaire confirming the participant's constipation status was completed. The participants then had their full case history taken and physical examination performed. Each case was repertorised using Mercurius Repertorisation Software version 5.2.1.0 and participants were given the individualised remedy at a 30C potency daily at a dose of 1 drop. The participants

were advised not to make any alterations to their usual diet or any lifestyle changes that could affect their bowel habits. At each follow-up consultation, the participant's case was re-evaluated with special attention given to changes in symptoms or the appearance of new symptoms. Depending upon the participants' responses to the initial prescription, the remedy or potency was either changed or continued. The results of the study indicated an improvement in stool frequency and general wellbeing for all 10 participants, and an improvement in stool form and ease of evacuation for the majority of participants.

3. Rajalakshmi MA. Homeopathic Treatment as an Aid to Inclusive Integration of Children with Autism Spectrum Disorder. *Hopathy*, November 17, 2018.

This was a retrospective study of the homeopathic treatment of 40 children with ASD, seen by the author in private practice. Standard constitutional homeopathic case taking was used to prescribe individualised homeopathic therapy. A quantitative analysis of this data found that there was a statistically significant reduction in the mean Autism Treatment Evaluation Checklist scores of children after the homeopathic treatment (33.17) when compared with the scores before starting the homeopathic treatment protocol (78.15).

4. Bosco F, et al. An integrated approach with homeopathic medicine and electro-acupuncture in anaesthesiology during breast cancer surgery: Case reports. *J Pharmacopuncture*. 2018;21(2): 126-131.

This study investigated the effect of a combination of homeopathic



medicine and electro-acupuncture in two patients with breast cancer and severe liver disease who could not receive standard anaesthesia therapy due to liver pathology. The team used homeopathic treatment (*Arnica montana* 15C and *Apis mellifica* 15C) before and after surgery and an electro-acupuncture treatment performed in the pre- and post-surgical phases without any analgesic/pain relieving medications. Both patients treated with the integrated approach improved their overall condition without the need for other common pain-relieving medicines.

5. Macias-Cortes EDC, et al. Response to Individualized Homeopathic Treatment for Depression in Climacteric Women with History of Domestic Violence, Marital Dissatisfaction or Sexual Abuse: Results from the HOMDEP-MENOP Study. *Homeopathy*. 2018;107(3):202-208.

The aim of this study was to assess the association between individualised homeopathic treatment or fluoxetine and a response to depression treatment in climacteric women experiencing high levels of domestic violence, sexual abuse or marital dissatisfaction, using a randomised, placebo-controlled, double-blind, double-dummy, three-arm trial design, with a 6-week follow-up. A total of 133 women with moderate-to-severe depression were enrolled in the trial.

Domestic violence, marital dissatisfaction and sexual abuse were assessed at baseline. Response to depression treatment was defined by a decrease of 50% or more from baseline score using the Hamilton scale. The possible association between domestic violence, sexual abuse, and marital dissatisfaction and response to depression treatment was analysed with bivariate analysis in the three groups. An analysis of the results showed that treatment with homeopathy was associated with a statistically significant improvement in depression, after adjusting for sexual abuse, domestic violence and marital dissatisfaction.

6. Oberai P, et al, Effectiveness of Homeopathic Medicines as Add-on to Institutional Management Protocol for Acute Encephalitis Syndrome in Children: An Open-Label Randomized Placebo-Controlled Trial. *Homeopathy*. 2018;107(3):161-171.

This Indian study was designed to assess the effects of homeopathic treatment as an addition to a standard institutional management protocol (IMP) for children diagnosed with acute encephalitis syndrome, using a randomised placebo-controlled trial design at an Indian paediatric unit where data was collected from 2013 to 2015. Children aged > 6 months and ≤ 18 years and receiving IMP were randomised to receive adjunctive

homeopathy (H) or placebo as control (C). The primary effectiveness analysis was based on Glasgow Outcome Scale (GOS). Morbidity was assessed using the Liverpool Outcome Score for Assessing Children at Follow-up. Analysis was by intention to treat. Data from a total of 612 children was analysed (H = 304; C = 308). The primary outcome, GOS, differed significantly between H and C groups. There was 14.8% death/neuro-vegetative state in the H group compared to 29.8% in the C group. Relative risk was 0.49 (95% confidence interval [CI]: 0.36 to 0.68), with absolute risk reduction of 15.0% (95% CI: 8.6 to 21.6%). The most frequently used medicines were *Belladonna* (n = 116), *Stramonium* (n = 33), *Arsenicum album* (n = 25), *Sulfur* (n = 18), *Opium* (n = 17), and *Nux vomica* (n = 10).

In-Vitro Research

1. Sekers S, et al. Evidence that Extreme Dilutions of Paclitaxel and Docetaxel Alter Gene Expression of In-vitro Breast Cancer Cells. *Homeopathy*. 2018;107(11):32-39.

This work investigated the effects of homeopathic preparations of the taxane anti-cancer drugs, which are not commonly used in homeopathic medicines, on mRNA expression profiles of five key genes (p53, p21, COX-2, TUBB2A and TUBB3) in the breast cancer cell line, MCF-7. To do this, MCF-



New to the Activated Probiotics range

Introducing new products and formulas to better support your patients.

activatedprobiotics.com.au

AUST L 478985 AUST L 445612 AUST L 464031
Always read the label and follow the directions for use.



To help maintain a healthy vaginal microbiome via localised delivery

To improve immunity, promote healthy digestion, and support bone density

To help increase absorption of dietary iron and maintain bowel regularity

Now folic acid free



7 cells were exposed to paclitaxel (Taxol) or docetaxel (Taxotere) preparations as 6X, 5C and 15C potencies prepared from pharmacological concentration of 25 nmol/L, for 72 hours. The cell culture groups were evaluated with the trypan blue dye exclusion method for proliferation/cytotoxicity rates, immunostaining β -tubulin for microtubule organisation, and reverse transcription polymerase chain reaction for gene expression levels. Fold-change in gene expression was determined by the $\Delta\Delta Ct$ method. The administration of the preparations had little or no cytotoxic effect on MCF-7 cells, but altered the expression of genes analysed with a complex effect. According to the $\Delta\Delta Ct$ method with a five-fold expression difference ($p < 0.05$) as a cut-off level, preparations of paclitaxel and docetaxel showed differential effects on the studied genes with a concentration-independent activity. Furthermore, the preparations disrupted the microtubule structure of MCF-7 cells, suggesting that they retain their biological activity. In conclusion, the team was able to demonstrate that gene expression alterations occur after exposure to homeopathic preparations of taxane drugs.

2. Kishore L, Singh R. Effect of Cephalaria indica against advanced glycation end products, sorbitol accumulation and aldose reductase activity in homeopathic formulation. Indian Journal of Research in Homeopathy. 2018;12(1):11-19.

This study was designed to evaluate the potential of homeopathic preparations of *Cephalaria indica* L. against oxidative stress. The antioxidant activity of *Cephalaria indica* (mother tincture, 6C and 30C) was evaluated by employing various in-vitro antioxidant methods. The mother tincture, 6C and 30C of *Cephalaria indica* were found to have strong reducing power, 2,2-diphenyl-1-picrylhydrazyl radical, hydrogen peroxide, nitric oxide and superoxide radical scavenging activity. The percentage inhibition of advanced glycation end product formation by mother tincture, 6C and 30C of *Cephalaria indica* (10–50 μ l) was found to be 30.34%–91.77%, 29.98%–65.71% and 33.05%–57.75%, respectively. Mother tincture, 6C and 30C of *Cephalaria indica* showed an inhibitory effect against sorbitol accumulation with IC50 value of 26.12 μ l, 203.10 μ l and 897.3 μ l, respectively, whereas, in aldose reductase inhibition assay, the IC50 value was 32.54 μ l, 175.02 μ l and 834.34 μ l, respectively. The results revealed that homeopathic preparations of *Cephalaria indica* exhibit a protective effect against oxidative stress.

3. Dalboni LC, et al. Biological Actions, Electrical Conductance and Silicon-Containing Microparticles of Arsenicum Album Prepared in Plastic and Glass Vials. Homeopathy. 2019;108(1):12-23. This research was carried out to determine if silica is present in homeopathic medicines

produced in glass or plastic vials, if it had any effect on the activity of the homeopathic medicine contained therein, and what effect, if any, homeopathically prepared *Arsenicum album* had on macrophage activity. To do this, the research team compared the biological activity, electrical current and silicon microparticle content (determined by means of scanning electron microscopy/energy-dispersive X-ray spectroscopy) of high dilutions (HDs) of arsenic prepared in plastic and glass vials, to investigate the role of silica in their biological effects in-vitro. Co-cultures of macrophages and yeast (*Saccharomyces cerevisiae*) were treated with different HDs of arsenic prepared in plastic and glass vials. Macrophage morphology, phagocytosis index, nitric oxide (NO), and cytokine production were evaluated. Measurable amounts of silicon microparticles were detected only in the HDs prepared in glass vials, but ultra-centrifugation eliminated them. Specific and non-specific results were observed. Non-specific pro-inflammatory effects were seen in all dilutions prepared in plastic vials, including elevation of pro-inflammatory cytokines, NO and macrophage phagocytic index. Only the 200C potency of arsenic produced a specific decrease in interleukin-6 production in macrophages, and it was independent of the vial type or the presence of microparticles of silica in the medicine samples. In addition, the nature of the vials had an impact on the electric flow in the respective fluids.



NEW 1:1 Glycetract Range Launched in May 2025

Our point of difference:-

- 7% Fulvic Minerals in every 500ml
- Significant savings on cost
- Free from chemical preservatives

www.bioactiv.com.au



over 30 now available

Bitter Melon 1:1 (*Momordica Charantia*) 500ml
 Cinnamon 1:1 (*Cinnomomum Cassia*) 500ml
 Cistanche 1:1 (*Cistanche Deserticola*) 500ml
 Codonopsis 1:1 (*Codonopsis Pilosula*) 500ml
 Corydalis 1:1 (*Corydalis Capnoides*) 500ml
 Damiana 1:1 (*Turnera Diffusa*) 500ml
 Devil's Claw 1:1 (*Harpagophytum Procumbens*) 500ml
 Echinacea 1:1 (*Echinacea Purpurea* (Linn.) Moench) 500ml
 Eclipta Alba 1:1 (*Eclipta Prostrata*) 500ml
 Elderberry Flower 1:1 (*Sambucus Williamsii* Hance) 500ml
 Fennel Seed 1:1 (*Foeniculum vulgare*) 500ml
 Polygonium Multiflorum (Fo-Tieng) 1:1 500ml
 Globe Artichoke 1:1 (*Cynara Scolymus*) 500ml
 Graviola 1:1 (*Annona Muricata*) 500ml
 Hawthorn Berry 1:1 (*Crataegus Monogyna*) 500ml
 Horny Goat Weed 1:1 (*Epimedium Brevicornum*) 500ml
 Jamaican Dogwood 1:1 (*Cornus Officinalis*) 500ml
 Lavender 1:1 (*Lavandula Angustifolia*) 500ml
 Meadowsweet 1:1 (*Spiraea Salicifolia*) 500ml
 Mistletoe 1:1 (*Viscum Album*) 500ml
 Mullein 1:1 (*Verbascum Thapsus*) 500ml
 Olive Leaf 1:1 (*Olea Europaea*) 500ml
 Paeonia (Peony) 1:1 (*Paeonia Lactiflora*) 500ml
 Panax Pseudo Ginseng 1:1 (*Panax Notoginseng*) 500ml
 Rehmannia 1:1 (*Rehmannia Glutinosa*) 500ml
 Rhodiola Rosea 1:1 (*Rhodiola Rosea*) 500ml
 Sarsaparilla 1:1 (*Smilax Officinalis*) 500ml
 Siberian Ginseng 1:1 500ml
 Tienchi Ginseng 1:1 (*Panax Notoginseng*) 500ml
 Tongkat Ali 1:1 (*Eurycoma Longifolia*) 500ml
 Tribulus 1:1 (*Tribulus Terrestris*) 500ml
 Nettle Leaf 1:1 (*Urtica Dioica*) 500ml



Regulation Report

Rebecca Lang | Chair, Regulatory Committee

As Chair of the ATMS Regulatory Committee, I'm pleased to provide this update on the strategic work we've been doing to advocate for the recognition, protection, and sustainability of the natural medicine profession in Australia.

This year has already seen a major milestone for our profession: the Federal Government's acceptance of the NTREAP (Natural Therapies Review Expert Advisory Panel) recommendations to reinstate seven natural therapies under private health insurance. This announcement represents years of collective advocacy from professional associations across the country, working with consistency and commitment to correct the course of policy decisions that sidelined our modalities back in 2019.

While this is a significant policy win, we are now entering the next critical phase: implementation. Each private health insurer must now individually update their policies and administrative systems to reflect the reinstatement of these therapies. This is not automatic and will take time. We are in active communication with health funds to encourage timely inclusion and clarity for practitioners and clients alike. In the meantime, we have published updates, reached out to insurers directly, and encouraged members to refer to the health fund table available via the ATMS website for the latest status.

This win demonstrates the power of sustained, sector-wide advocacy. It also reinforces the need for a strong, clear voice for the natural medicine profession — one that is backed by data, driven by collaboration, and rooted in professional integrity.

In addition to this, our Committee has maintained a strong focus on equity and workplace reform. In April, we prepared and submitted a detailed response to the Fair Work Commission as part of its Gender Undervaluation – Priority Awards Review. Our submission focused on the Health Professionals and Support Services (HPSS) Award 2020, which currently fails to provide any dedicated classification or wage alignment for allied natural health professionals such as naturopaths, remedial massage therapists, nutritionists, and herbalists etc.

We highlighted that many of our members — most of whom are women — are employed under awards that do not reflect their training, scope of practice, or professional responsibilities. This contributes to structural pay inequities and places long-term pressure on practitioners, small businesses, and the quality of care available to the community.

Our proposal recommended the formal inclusion of a new category under the HPSS Award — "Allied Natural Health Professionals" — with a tiered classification system based on qualification levels. We also proposed wage alignment in line with existing benchmarks used in other health professions. This work is about fairness, but it's also about professional recognition and sustainability for our workforce. The

submission is now under review, and I will be continuing discussions with COSBOA (Council of Small Business Organisations Australia) to ensure our members' interests are represented in policy reform conversations.

Another major piece of work under way is the development of our Naturally Informed White Papers. These have been designed to support member understanding of key regulatory topics, including the National Code of Conduct for Healthcare Workers, health fund recognition, TGA compliance, client complaints, and the national health regulatory framework, and much more. These papers aim to address confusion, support ethical practice, and provide practical resources for practitioners navigating a complex and sometimes misunderstood regulatory environment.

Each document has been carefully reviewed and is currently undergoing final feedback and approval by the Regulatory Committee. Once published, they will be available through the member portal and supported by short explainer videos and optional CPD-linked activities. These resources will also be helpful tools for internal teams such as the Complaints Committee, and may serve as reference material in public advocacy and member education.

The committee has also been working on a TGA compliance project, particularly in response to the recent review of Wild Cherry Bark. When inconsistent information emerged between our draft press release and that of another professional association, we paused our communication and sought clarification. It's vital that our messaging is accurate and grounded in regulatory facts, particularly when it affects practitioner confidence and product compliance. We are now exploring opportunities for joint press releases and industry alignment in future responses to regulatory decisions. A detailed TGA Compliance Guide for members is also being scoped, alongside legal review options to ensure robustness.

On the disability services front, our advocacy regarding the National Disability Insurance Scheme (NDIS) continues. We have drafted a submission proposing the inclusion of acupuncture under the NDIS, which is currently under review by the ATMS Chinese Medicine Committee. We are now working toward a second, stand-alone submission for massage therapy. These therapies have clear benefits for people with disability and deserve to be accessible under national funding schemes. At this stage we will be collecting scientific evidence to justify the benefits of acupuncture and massage for people with a disability. We will continue to push for their inclusion through evidence-based, practitioner-informed submissions.

To ensure our work remains member-driven, we have been aligning our advocacy priorities within the Monday.com platform. This system allows us to track policy issues by modality — naturopathy, Chinese medicine, massage, and nutrition — alongside supporting data, submissions, and timelines. It's helping us be more agile, transparent, and strategic in the way we prioritise our work and report back to members.

Finally, I want to thank everyone who has contributed to this work — whether through feedback, expert advice, research, or participation in forums and committees. Advocacy is most powerful when it reflects the real voices of practitioners, and I remain committed to making sure those voices continue to be heard.



Negligence Law: *An Overview*

Ingrid Pagura | BA, LIB

In most states and territories in Australia today a Civil Liability Act, or Wrongs Act, governs negligence claims, though it was originally established in common law when Lord Atkin, nearly 100 years ago, stated:

‘You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour. Who, then, in law, is my neighbour? The answer seems to be – persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called in question.’ (Donoghue v Stevenson)

In essence, the idea behind negligence is that a person must exercise ‘reasonable care and skill’ while conducting their duty of care obligations. The aim of negligence law is to compensate for personal injury caused by lack of care and skill.

Despite now being enshrined in legislation, the principle is the same, as is the way it is proven. So, let’s look at each in turn. It is also important to note that it is the plaintiff (the person who has been injured) who must prove this, and not the defendant (the health professional, for example) who must disprove it.

Duty of care

A plaintiff must first prove that ‘a duty of care existed between the plaintiff and the negligent party’. A duty of care is a legal duty to take reasonable care and usually depends on the relationship between the parties. In the words of Lord Atkin, it is your ‘neighbour’ or ‘persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected’. This has always been taken to mean that there is a relationship between the plaintiff and the defendant where the actions, or lack of them, of the defendant will affect the plaintiff.

So, who owes a duty to whom? The answer is, doctors to patients, and health care professionals to clients. There are many more but for our field these are the most common. The idea comes from a concept that if a patient/client comes to see a health care professional, they are assuming that the professional will act with skill and care, and within their scope of practice, and that they will avoid causing reasonably foreseeable harm to them.

Remember though, you don’t owe a duty of care to everyone you encounter, as there must be a sufficient relationship of proximate-ness or closeness between people for a duty of care to exist.

Generally, though, there will always be a duty of care between a health care professional and their patient/client.

Breach

Once a plaintiff has established that a duty of care was owed to them by the defendant, they will need to show that the defendant breached that duty of care. In other words, ‘What, specifically, did the duty of care require to be done or not done?’

Decisions on whether a ‘breach’ has occurred will centre on what is considered ‘reasonable’. This means that a person is not necessarily expected to protect everyone from all harm, but that a person must act, under the circumstances, as a reasonable person would.

So, in other words, the patient/client needs to prove that the health care professional was at fault and did not act in a reasonable way. This involves their proving that there was a risk of harm, that it was foreseeable and that a reasonable person in the same circumstances would not have acted in the same way.

This is what we call the Standard of Care, and we judge the defendant against what a reasonable person with the same skills, knowledge and experience would have done in the same circumstances.



Some examples of breach could be an incorrect diagnosis, overlooking a patient's signs or symptoms, incorrectly prescribing medication, failing to order necessary tests, misinterpreting results, failing to gain informed consent, failing to adequately warn patients of risks, failing to follow up, not taking a patient history and performing a treatment for which you have no qualifications.

So, this is all probably sounding overwhelming, but it needn't be. There is a simple way to avoid these complaints, and that is to follow Peer Professional Opinion in practising your therapies. In other words, if there is a standard approach and treatment of a condition agreed to by your profession you should always stick to that. That becomes your scope of practice and always stay within it.

Causation

The third element that a plaintiff must prove in a negligence claim is causation. This means that a plaintiff must show that the damage or injury suffered came about as a result of the breach of duty of care. There is an old test called the 'but for' test which states that a plaintiff must show that 'but for the defendant's negligence they would have suffered no loss'. Simply put, if the health care professional hadn't acted in the way they did, the patient/client would not have been harmed in some way.

ALL A PLAINTIFF MUST PROVE IS THAT IT IS LIKELY THE DEFENDANT DID THE WRONG THING IN SOME WAY. THIS IS WHY IT IS VERY IMPORTANT, AS A HEALTH CARE PROFESSIONAL, TO ALWAYS ACT IN THE CORRECT WAY.

Some Helpful Tips

1. Always take a client history and regularly review it and update it.
2. Always listen to what your clients are saying about their symptoms as well as observing their signs.
3. Always follow industry guidelines in diagnosing, treating, and caring for clients.
4. Always get consent before any treatment.
5. Always warn clients of possible risks and side effects from treatments or therapies.
6. Always follow up with clients.
7. Always read test results carefully.
8. Always refer the client to another therapist if their issues are beyond your scope of practice.
9. Never perform a treatment that you are not qualified in. 'Qualified' means that you have a certificate that is recognised by your industry.
10. Never perform a treatment that is outside your scope of practice. Merely having read about something isn't enough.
11. Never tell a client to ignore a medical or other professional or stop them taking medication. Encourage open communication between the client and all their health professionals.
12. Stay up to date with new practices and industry guidelines. This is your Standard of Practice, and it is on you to know about it.

This is usually not too difficult for the plaintiff to prove. Sometimes where a therapist has obviously done the wrong thing there will be evidence to show this. At other times, it can be more difficult. All a plaintiff must prove is that it is likely the defendant did the wrong thing in some way.

This is why it is very important, as a health care professional, to always act in the correct way. You can show evidence, if necessary, that you always take a case history or that you always warn clients of risks etc. That would mean that it is also likely you would have done that in this case as well. (Go back and read my tips again and make sure you follow them!)

Damages

If a plaintiff successfully proves duty of care, breach, and causation, they will be

eligible to receive compensation for their injury or the harm that has been caused. This final element of a negligence claim is called damages.

Damages are awarded for both economic and non-economic loss and include things like lost wages, medical expenses, ongoing treatment expenses and pain and suffering.

This is just a brief review of the law of negligence and every case is decided on the facts of its own situation. Not every injury or harm is caused by negligence; sometimes things just happen through no one's fault. Always protect yourself by acting in the way your peers recognise as standard practice and make sure your have adequate insurance. Stay up to date with industry changes and always act in a professional way.



A Healing Path: A Personal Journey into Tibetan Medicine

Menpa-Pema | healththroughbalance35@gmail.com

My life has been a journey shaped by ancient wisdom, spiritual discovery and an abiding reverence for Mother Nature. The call to healing was one I felt deeply, sparked by the rich traditions and vast landscapes that coloured my early years. Grounded in Tibetan heritage and shaped by the wisdom of ancient landscapes, my path has brought me to embrace the profound healing practices of Tibetan medicine as both a path and a purpose. This healing art has become my bridge to honour the past, serve others, and fulfil a calling that resonates with my heart and soul.

Central to this journey was the influence of my father, whose innate skills and deep understanding of nature and coexistence left a lasting imprint on me. His reverence for the natural world and intuitive grasp of its healing powers taught me the importance of balance and respect for all living beings. Through him, I learned that true healing comes from harmony—with both the inner self and the world around us. His teachings on coexistence and his instinctive connection to nature laid the foundation for my dedication to Tibetan medicine, encouraging me to honour the ancient ways while cultivating compassion and respect for each patient I encounter.

From an early age, I felt captivated by the resilience and wisdom of Tibetan culture. Raised in an environment deeply attuned to nature's rhythms, I learned to appreciate the interconnectedness of all life. Tibetan culture reveres nature as a powerful source of healing, viewing it as a living force that reflects the balance we seek within ourselves. Nature became both my teacher and healer, offering insights that would shape my approach to Tibetan medicine. Despite challenges in my early years, my Tibetan identity and reverence for nature remained unwavering—especially through Tibetan medicine, a tradition passed down through generations. Drawn to this legacy, I felt my path lay in the healing arts, where I could deepen my understanding of ancient wisdom while serving others with compassion, respect, and love for the natural world.

After completing formal education, I joined Men-Tsee-Khang, the Tibetan Medical and Astrological Institute. This institution is not just a medical school but a sanctuary of Tibetan culture, dedicated to preserving and promoting ancient medicinal practices. For 6 years, I immersed myself in Tibetan medicine, studying subjects like herbal pharmacology, diagnostics, treatment methodologies, and the holistic philosophy that makes this practice unique. These teachings emphasised balance, harmony, and the interconnectedness of mind, body, and spirit—principles that deeply resonated with me and reflected lessons I had absorbed from nature.



My time at the Tibetan Medical and Astrological Institute was a spiritual journey as much as a scholastic one. Each lesson underscored the importance of compassion and humility in healing. The rigorous curriculum laid a solid foundation for holistic diagnosis and treatment, teaching me to view patients as whole beings whose physical, emotional, and spiritual well-being are interdependent. This approach has remained with me, shaping my view of healing and encouraging me to look beyond symptoms to uncover root causes. My time there taught me that true healing honours not only the individual but also the wisdom of ancient traditions and the natural world that supports all life.

My academic journey culminated in a year-long internship under the guidance of a revered senior physician. This hands-on experience was invaluable, allowing me to observe Tibetan medicine in practice. Witnessing the senior physician's compassionate approach to patient care, I absorbed clinical techniques and the essence of healing as an empathetic, attentive process. I came to see the healer as a conduit, channelling both knowledge and compassion to foster healing. These patient interactions reinforced my belief that healing is a symbiotic process, aligning our inner nature with the outer world.

Entering the professional world of Tibetan medicine, I practised across various branches of our institute in India — serving diverse communities in cities like Bengaluru, Mumbai, Ahmedabad, New Delhi and the serene landscapes of Dharamshala. Each place provided unique experiences and challenges, helping me to expand my clinical skills and reinforce my commitment to holistic care. Practicing Tibetan medicine in these settings deepened my appreciation for its profound impact on those seeking solace from physical and emotional ailments.



During my college years, I actively engaged in dialogues and conferences, including the 'Interfaith Program' by Universal Responsibility and the esteemed 'Mind and Life Conference'. The latter brought Buddhist masters and Western scientists together to explore the intersection of science and spirituality, discussing topics such as the mind, human flourishing, and alleviation of suffering. These discussions broadened my perspective, affirming the universal relevance of Tibetan medicine's principles and fostering a deeper respect for diverse healing traditions.

In pursuit of holistic knowledge, I explored Ayurveda and modern science, attending workshops in Bengaluru and Chennai. My role as a support staff for the Emory-Tibet Medical Sciences Program allowed me to collaborate with professors from Emory University in Atlanta, Georgia, facilitating cross-cultural exchanges and providing translation for Ayurveda and allopathic scholars. These experiences strengthened my belief in integrative approaches and the value of learning from various healing systems.

In 2013, I brought Tibetan medicine to a global stage, leading a 3-month diploma course for Westerners at the Tibet Centre in Austria. The following year, I visited Germany to facilitate a knowledge exchange between Tibetan and Western medical systems. Sharing Tibetan medicine with individuals from diverse cultures has been incredibly rewarding, fostering mutual learning and understanding. I have conducted numerous courses on Tibetan medicine for international students, whose dedication and enthusiasm for this ancient system inspire gratitude and pride.

Throughout my teaching career, I committed to deepening my knowledge. Six years of full-time teaching at Men-Tsee-Khang Institute in Dharamshala allowed me to guide students on their Tibetan medicine journey, passing on the wisdom imparted to me by my mentors. I also authored a book on Tibetan medicine's approach to mental health in the Tibetan language, hoping to raise awareness within Tibetan communities.

Beyond medical knowledge, my academic journey integrated Buddhist philosophy and spiritual teachings. I dedicated over more than 200 hours to studying Buddhist philosophy and psychology, along with more than 250 hours in spiritual practices and medical astrology. These studies were integral to my degree, grounding my understanding in the wisdom of Buddhism.

In 2022, I made the decision to move to Australia, seeking to create greater opportunities and a brighter future for myself. This move was motivated by my desire for personal growth and the chance to contribute meaningfully to my field in a dynamic new environment.

To enhance my therapeutic skills, I trained in remedial massage, obtaining a diploma that broadened my knowledge of bodywork and physical therapy. This training complements my expertise in Tibetan medicine, focusing on balance, pain relief, and well-being through manual techniques and holistic principles. I am proud to hold ATMS accreditation in both Tibetan medicine and remedial massage.

Each experience has deepened my commitment to Tibetan medicine's healing heritage, reinforcing my dedication to preserving this ancient wisdom. With each step, my practice feels like a continuation of the knowledge passed down through generations and the healing powers of nature.

Today, as a Tibetan medicine practitioner, I carry my heritage's teachings and the compassionate spirit that defines our healing tradition. My practice is guided by the principles of balance, harmony, and personalised care, and I am dedicated to providing holistic healing to those seeking restoration and tranquillity. Located in the heart of Ashfield, Sydney, I offer a range of Tibetan healing services, including monthly workshops on Tibetan medicine at a low fee, and health fund eligibility for remedial massage treatments.

This advertisement is available only to ATMS Accredited Members in accordance with the Therapeutic Goods Advertising Code.

PRACTITIONER PROFILE



Through my practice, I strive to be a conduit for healing, honouring Tibetan traditions while embracing opportunities to integrate other medical perspectives. Tibetan medicine is more than a profession; it is a path of service and dedication, walked with gratitude, humility, and a commitment to the well-being of others. Guided by the compassion and wisdom of my mentors and the nurturing spirit of nature, I am eager to share Tibetan medicine's healing gifts with the world.

Reflection

As I reflect on this journey, I am reminded of the many lessons I've learned since my earliest years. Being away from my parents from the age of twelve taught me resilience, independence, and the strength to make pivotal life decisions on my own. These experiences have not only shaped my character but deepened my empathy, which is at the heart of my healing practice.

My path in Tibetan medicine and holistic healing has been guided by a profound love for helping others—a love that has always pushed me toward the positive and inspired me to grow, despite the challenges.

In every interaction, I strive to bring the wisdom and compassion instilled in me by my mentors and the enduring presence of nature itself. Tibetan medicine is, for me, more than a career; it is a calling, a way to honour my heritage, and a bridge to connect ancient traditions with those seeking peace and restoration in today's world. It is my deepest wish that each person I work with feels not only the power of Tibetan healing but also the warmth of compassion and understanding that has guided me throughout my life. I am grateful to share this journey with my community, to create spaces of healing, and to embrace every opportunity to contribute positively to the lives of others.

Over the past 17 years of dedicated study and practice in Tibetan medicine, I have gained profound insights that have significantly shaped my approach to healing. This extensive journey has not only deepened my understanding of ancient healing traditions but has also enriched my ability to connect with others on their paths to wellness. Each experience, whether it be through rigorous academic training or hands-on practice, has imparted invaluable lessons that continue to inform my work. I have learned the importance of compassion, the interconnectedness of mind and body, and the necessity of balance in all aspects of life. This journey has fostered a deep respect for the healing arts and an unwavering commitment to serving those in need, guiding me toward becoming a more effective and empathetic healer.

Health Flourishes When Balance Is Restored.



ATMS

Australian Traditional-Medicine Society

Research Grants 2025

Applications close 26th July 2025 5pm AEST.

ATMS invites applications for a grant of up to \$10,000 for natural medicine research that supports the goals of the ATMS Strategic Plan.

ELIGIBILITY CRITERIA

The **Applicant** must be a financial Accredited/Life/Fellow member of ATMS.

The **Chief Investigator** of the project must:

- be an Australian citizen or a permanent resident
- currently reside in Australia

PROJECT REQUIREMENTS

Proposals must be for a clearly identifiable 12-month project, even if part of a larger research initiative. Funding is not intended to provide long-term support for projects or top-up funding for ongoing studies.

If your project involves practice-based research your Public Indemnity Insurance must specifically cover this.

TO APPLY > Download the application documents from [https:// www.atms.com.au/about/research-grants/](https://www.atms.com.au/about/research-grants/)



Transition to Practice

Christine Pope

This year ATMS is running Transition to Practice in Sydney and Adelaide to support students to set up and run successful practices. The first event was held in Sydney on the 8 February 2025 at UTS, and the second is being planned for Adelaide in June.

The Sydney event was facilitated by two experienced presenters, Naturopath and previous ATMS Director, Christine Pope, and Executive Coach, Cheryl Alderman. Christine developed Transition to Practice in 2016 with Robert Medhurst. Cheryl Alderman is the owner of Social4U, a social media marketing business which provides Instagram, Facebook and LinkedIn marketing services for small businesses.

At the Sydney event this year we also had support from ten ATMS sponsors. This was an ideal way for students to see various product ranges, meet their suppliers, and set up accounts. This year's sponsors were Bioglan/Medlab, Eagle Clinical, Osborne, Bio Practica, Vital.Jy, natural script, Activated Probiotics, Herbal Extract, Interclinical and ATMS Biz Club. It presented a great mix of products, testing, dispensary and business coaching services.

It was good to see 100 students and recent graduates in the room getting ready to set up their practices. There were also a few members who were already in practice and looking to expand their skills in marketing and social media. They contributed so much to the day with the wisdom of their years in clinical practice and a desire to start using social media to promote their business.

The topics covered over the course of the day included setting up your clinic, key legal requirements (depending on your type of practice), building a website and promoting your clinic. The expectation from most attendees was that social media will be an important part of the mix for marketing, as well as a website. Many were surprised to see that another important skill developed at Transition to Practice was networking, and the group enjoyed the interactive session demonstrating the key networking techniques.



Cheryl Alderman and Christine Pope



Feedback from the event was very positive and included these testimonials:

"I'm a teacher and I've been in practice a long time. So I'm very glad to go and I'd go again in a few years to update my resources for students. I will advise all my students to attend this day. It's terrific."

"Noteworthy information not taught in my tertiary studies."

"I felt the day was packed with insightful and imaginative presentations!!"

Of course, no feedback is complete without input on the food and the breaks.

"The whole day was perfect and well-paced. The information and interactive parts were good. Very professional presentation. I loved the food choices at morning and afternoon tea and lunch. Please keep the afternoon tea break. ❤️ Most of us start to flag a bit after lunch!"

For those members who have been inspired by Transition to Practice the next step is to join the next quarterly intake of ATMS Biz Club. It's an affordable business coaching program for ATMS members, designed to take your practice to the next level. The four quarters cover Practice Building, Marketing Success, Client Growth and Operational Excellence, and you can join it at the start of each quarter.



Annie Gibbins, CEO ATMS



Goodbye dear friend – a tribute to Robyn Kirby

It is with great sadness that I have recently learned of the passing of Robyn Kirby on 29 January, 2025. Robyn was an early student of Southern Cross Herbal School when I first taught a Diploma of Medical Herbalism course at my practice and lecture venue in Gosford as well as at Glebe Town Hall in the early 1980's. Apart from the Basic and Medical Sciences component of that course the bulk of the program was entirely taught by myself, so in a real sense Robyn became an avid disciple of my style and interpretation of Herbal Medicine, from which she never veered. After completing the 3-year program, Robyn necessarily and enthusiastically became a member of the National Herbalists Association of Australia. She rapidly rose to prominence in the Association by her vivacious and affable personality, combined with her sound, unwavering commitment to traditional herbal medicine. I suspect that her earlier teaching career fitted her well for some of the negotiating, organising and leadership she demonstrated when she was elected as President for the National Herbalists Association of Australia, the first woman President of the Association, a position she held for 6 years, during which she steered the herbal profession in Australia to unparalleled heights of recognition. This was evidenced by her convening of the first ever Australian International Conference of Herbal Medicine, at which I was honoured to be the leading and opening speaker in the company of such luminaries as Hein Zeylstra of the British NMIH and Steven Foster, well known herbal writer from the USA.

Robyn established her practice of Herbal Medicine at her farmhouse in Narara on the Central Coast of NSW. It rapidly grew and she attracted patients and clients from a wide spectrum of the population. She specialised in children's conditions and from this interest she developed her famous chickweed ointments. The ointments were so successful that she and I began to manufacture them on a commercial basis, which eventually required us to negotiate the sale of the product formulations and business to a well-known Toowoomba-based herbal company.

Robyn's farmhouse at Narara was a place of pilgrimage at which students and graduates of Southern Cross Herbal School, as well as the public, enjoyed her hospitality, her display herb garden and her enthusiasm for using herbs straight out of the garden. One never to be forgotten event was when students and others attending the Annual Southern Cross Herbal School Manufacturing Seminar retreated to her farmhouse and "at a distance" observed Robyn's husband, at that time, and myself, open up one of the bee hives which were located at the back of the property, extricate a sufficient amount of live bees from the hive and proceed to make a Tincture of Apis from them (the bees never felt a thing - they were processed in alcohol and went very quietly.)

Robyn happily shared her enthusiasm and manufacturing skills when she was a key lecturer at the manufacturing seminars conducted by Southern Cross Herbal School. The students were fascinated by her personal "folksy" presentations and they genuinely loved her. She caused me a little concern when her measurements and proportions for various ointments and lotions were frequently "a bit of this and a bit of that", particularly after I had just previously laboured in presenting perhaps a tedious lecture on the regard for a disciplined approach to formulation proportions and measures! Perhaps my engineering background was more the issue and I am frequently corrected when I remember that "herbalism is not a pure science, it is as much an art form".

It is perhaps a great pity that her book "Robyn Kirby's Herbs for Healing", published by ABC Books for the Australian Broadcasting Corporation in 1998, is now not as well known or recognised as it should be. All aspiring herbalists and those practising herbalists (perhaps bored with, and disappointed and uninterested in, the more technical biomedical, pharmacological emphasis of much current herbal education and practice) should seek out Robyn's book and eagerly devour the more easily understood herbal treatments that she used so competently and successfully.

From a personal perspective, Robyn and my family were very close, not only because we lived not far from each other, but also we were in regular contact. Robyn would visit our home in Gosford to enjoy the company of my wife Ruth and particularly our daughters Rachel and Melanie - she could have been seen as almost a member of our family. Similarly, I would visit Robyn's farmhouse regularly to assist in the ointment manufacture and to attend my beehives and of course to share a few beers with Robyn's husband – good days they were.

A beautiful photograph of Robyn has hung in my consulting rooms at New Lambton for many years as a constant testimony for my patients, clients and visitors, and a perpetual reminder to myself of this unique and remarkable "wise woman", never to be forgotten as one of the greats of Australian Herbalism and an original active participant of the herbal renaissance in Australia, of which there are few of us left.

GOODBYE, DEAR FRIEND

Denis Stewart ATMS Life Member number 12, Hall of Fame Recipient



Look No Further

FAQ ABOUT YOUR INSURANCE

Based on enquires and phone calls we receive from our ATMS clients in regards to the cover provided by CGU and GSA, we have put together a FAQ to assist with your own enquiries.

Q. How do I take out a NEW policy with GSA?

A. If you are a new client to GSA and require cover for Professional Indemnity and Public & Products Liability, please head to our website: www.gsai.com.au/atms

Q. How can I renew my EXISTING policy with GSA?

A. GSA will provide four renewal notifications with a personalised link to your policy via email correspondence. This email allows you to renew your policy at a time which is convenient to you.

Q. Can additional names be included on my Insurance policy?

A. The cover provided by CGU is for YOU as an Individual practitioner as well as your Business entity. Should you have employees under the Business entity, your staff are automatically covered under the business name. All other Individual members outside of this criteria are to hold their own insurance policy.

Q. Does the policy cover me to work as a mobile practitioner?

A. Yes, the policy provides cover for you to work Australia Wide. You do not have to notify GSA of your clinic address.

Q. Is the insurance premium payable via monthly instalments?

A. Payment must be paid in full at the time cover is taken out.

Q. Do I need to advise GSA if my contact details change?

A. Yes, all correspondence sent by GSA is via email. It is essential that GSA have your current email address and contact phone number on file. Simply email our office at atms@gsai.com.au with any updates.

Q. What does Professional Indemnity cover me for?

A. Professional Indemnity insurance is designed for professionals who provide advice and or a service to their clients. It is designed to protect you against legal costs and claims for damages to third parties which may arise out of an act, omission or breach of your professional duty in the course of your business activities.

Q. What does Public & Products Liability cover me for?

A. Public Liability Insurance protects you and your business against the financial risk of being found liable to a third party for death or injury, loss or damage of property resulting from your negligence.

Q. What are the implications if my policy is not renewed by the date required?

A. It is a requirement of both ATMS and the Health Funds to maintain continuous insurance cover. It is critical that you renew your policy prior to it expiring to ensure you remain compliant.

Vale Robyn Kirby. What a wise and warm woman and what a wonderful herbalist. I had the pleasure of meeting her when I was a herbal medicine student back in the mid-80s and so, when I needed help to conceive and wanted someone I trusted, it was Robyn I turned to. And now 36 years later I look at my firstborn and send my thanks through the ether to Robyn. I'm sure she is the herbal fairy godmother to many others.

Sally Kingsford-Smith ATMS Member number 12622

Fare thee well, Robyn Kirby.

What a woman.

How lucky we are to have known her. The first female president of the National Herbalists Association, "Herbs, the first medicine" Robyn.

Robyn transformed the NHAA with her friendliness. She was funny and nurturing, and full of anecdotal wisdom. Like her medicine, she was available and accessible and her wisdom was homespun and relatable.

Whenever she spoke at the graduation ceremonies of various colleges of natural medicine everyone would fall in love with her. All our grads joined NHAA. She was Mamma.

I feel sure that we will find Robyn in spirit among the grass roots natural medicine movements all around the world.

Nancy Evelyn Life ATMS Life Member number 35

Robyn was a friend, colleague and trailblazer for all things natural. At her busy clinic in Gosford she became well known for her upper respiratory system treatments. Robyn loved to grow herbs too. Her garden was amazing. When I initially qualified as a Naturopath in 1986, Robyn along with Denis Stewart presented numerous herbal medicine lectures at the CWA hall in Gosford. Robyn's field excursions were also well attended. Her humour and down-to-earth grass roots style still resonate with me now. RIP Robyn, you have left your mark on the Australian Herbal Medicine community.

Maggie Sands ATMS Life Member number 28

How grateful I am for the trailblazers of herbal medicine and naturopathy in Australia. Thank you, Robyn, for the endless hours of selfless work to secure accreditation and for paving the way for the future of natural medicine. Vale Robyn Kirby.

Lis Conlon ATMS Member number 2074



Acupuncture and TCM

Wang X, Fan Y, Xiang Y, Zhang S, Yang Y. Comprehensive gut microbiota and metabolomics combined with network pharmacology reveal the effects of acupuncture treatment for chemotherapy-induced nausea and vomiting. *Transl Gastroenterol Hepatol.* 2025 Apr 14;10:26. doi: 10.21037/tgh-24-35. PMID: 40337760; PMCID: PMC12056097.

Background: Chemotherapy-induced nausea and vomiting (CINV) significantly impact cancer patients' quality of life. Traditional pharmacological treatments often have limited effectiveness and can cause adverse effects. Acupuncture, a key practice in traditional Chinese medicine (TCM), shows promise as a complementary therapy for CINV. The purpose of this study was to explore the effects and underlying mechanisms of acupuncture in treating CINV.

Methods: We employed a multi-faceted approach to comprehensively explore the abnormal performances of CINV model and to elucidate the regulatory effects of acupuncture in treating CINV through the integration of 16S rRNA analysis, serum metabolomics, and network pharmacology.

Results: Acupuncture significantly reduced kaolin consumption, mitigated anorexia, and attenuated body weight loss compared to the model group. Acupuncture was found to modulate the gut microbiota composition, enhancing beneficial taxa and reducing harmful ones. Serum metabolomic analysis revealed significant alterations in metabolic profiles, with acupuncture impacting various metabolites involved in pathways related to fatty acid biosynthesis, urea cycle, and amino acid metabolism. Spearman correlation analysis indicated a significant association between gut microbial taxa and serum metabolites. Furthermore, network pharmacology analysis identified key genes (MAPK1, STAT3, EGFR, AKT1, SRC) and pathways (PI3K/Akt, neuroactive ligand-receptor interaction) associated with the anti-

CINV effects of acupuncture. In conclusion, acupuncture holds promise in ameliorating CINV through its multifaceted impact on gut microbiota, serum metabolome, and molecular pathways.

Conclusions: Acupuncture was an adjunctive and important non-drug treatment for CINV, with the protective effects linked to the improvement of gut microbiota disruption and metabolic abnormalities.

Chen P, Jin X, Yu D, Chen X, Lin Y, Wu F, Shao B. Efficacy of acupuncture on lower limb motor dysfunction following stroke: A systematic review and meta-analysis of randomized controlled trials. *PLoS One.* 2025 May 7;20(5):e0312918. doi: 10.1371/journal.pone.0312918. PMID: 40333934.

Background: Acupuncture is widely used for Lower Limb Motor Dysfunction Following Stroke (LLMD) in China, though its effectiveness remains unclear. This meta-analysis aims to evaluate the effectiveness of acupuncture for LLMD.

Methods: We searched eight databases, including PubMed, Embase, Web of Science, Cochrane Library, China National Knowledge Infrastructure, Wanfang, VIP, and CBM, up to December 2023. Randomized controlled trials on acupuncture therapy for LLMD after stroke were included in this study. Outcome measures included motor function, balance function, walking ability, and daily living activities. Two researchers conducted independent literature screening, data extraction, and quality assessment in accordance with Cochrane Collaboration network's standards. Review Manager 5.3 and Stata 17.0 were used in data analysis. Results were presented as mean difference (MD) or standardized mean difference (SMD) with 95% confidence interval (95% CI).

Results: Twelve studies involving 1318 patients, most of which showed low or unclear risk of bias, were included in this review. Meta-analysis results indicate that compared with conventional treatment, acupuncture intervention

can improve scores in Fugl-Meyer Assessment for lower scale (SMD = -0.48, 95% CI [-0.92, -0.04], Z = 2.16, P = .03), Berg Balance Scale (SMD = -0.86, 95% CI [-1.65, -0.07], Z = 2.14, P = .03), Functional Ambulation Category scale (SMD = -0.74, 95% CI [-2.33, 0.84], Z = 0.92, P = .36), and Modified Barthel Index Scale (SMD = 0.27, 95% CI [-0.30, 0.84], Z = 0.94, P = .35).

Conclusion: The results of this study suggest that acupuncture combined rehabilitation training may be more effective than conventional rehabilitation alone in improving LLMD, balance function, walking ability, and daily living activities after stroke. Despite limitations due to the low quality of the included studies and methodological constraints, acupuncture combined with rehabilitation training may serve as an effective approach for the treatment of LLMD poststroke.

Kraft J, Hardy A, Baustädter V, Bögel-Witt M, Krassnig K, Ziegler B, Waibl PJ, Meissner K. Traditional Chinese medicine for post-COVID: A retrospective cohort study. *Medicine (Baltimore).* 2025 May 2;104(18):e42275. doi: 10.1097/MD.00000000000042275. PMID: 40327434; PMCID: PMC12055149.

Post-COVID syndrome affects at least 10% of individuals recovering from COVID-19. Currently, there is no causal treatment. This retrospective cohort study aimed to evaluate the potential of traditional Chinese medicine (TCM) in treating post-COVID symptoms. TCM physicians in Germany and Austria completed online questionnaires to retrospectively record symptoms, treatment approaches, and outcomes for patients diagnosed with post-COVID. Nine physicians collected data from 79 patients (65% female, 47 ± 16 SD). The most common TCM treatments for post-COVID were acupuncture (n = 66; 85%), Chinese pharmacological therapy (n = 61; 77%), and Chinese dietary counseling (n = 32; 41%). After an average of 7 ± 4 TCM consultations, physicians rated global symptom improvement as 62% ± 29%. Significant alleviation from the start



of TCM treatment was observed in major symptoms, such as fatigue ($P < .001$), impaired physical performance ($P < .001$), and exertional dyspnea ($P < .001$). TCM treatment was associated with significant improvements in post-COVID symptoms, warranting further evaluation through randomized controlled studies.

Andrade KB, Rodrigues CAO, Souza VCF, Teixeira WS, Andrade C, Gusmão ROM, Corrêa HP, Ruela LO, Silva RRV, Sawada NO, Moura CC, Araújo DD. Auricular acupuncture associated with low-frequency laser in chronic low back pain: A randomized clinical trial. *J Bodyw Mov Ther.* 2025 Jun;42:1098-1105. doi: 10.1016/j.jbmt.2025.03.019. Epub 2025 Mar 13. PMID: 40325643.

Background: Low back pain is recognized as the leading cause of disability worldwide, affecting various populations and leading to social, psychological, functional, and economic consequences. Research into effective treatments for this condition is clinically relevant.

Objective: This study evaluated the effectiveness of auricular acupuncture combined with low-frequency laser therapy in treating chronic low back pain in primary care patients.

Design: A randomized clinical trial.

Participants: A sample of 104 individuals with chronic low back pain was divided into two groups: the experimental group ($n = 52$), which received four sessions of auricular acupuncture and low-frequency laser therapy (modified intravascular laser irradiation of blood), and the control group ($n = 52$).

Intervention: Participants were evaluated at the beginning and seven days after the last treatment session. Pain intensity was measured using a numerical pain scale, while the degree of physical disability was assessed using the Roland-Morris disability questionnaire. Quality of life was evaluated with the WHOQOL-BREF, and perceived

self-efficacy in managing chronic pain was measured using the chronic pain self-efficacy scale.

Results: The experimental group showed significant reductions in pain intensity and improvements in physical disability, quality of life (specifically in health satisfaction, psychological well-being, and environmental factors), and self-efficacy in chronic low back pain management (all $p < 0.0001$).

Conclusion: Auricular acupuncture combined with low-frequency laser therapy was effective in reducing pain, improving physical disability, enhancing quality of life, and increasing self-efficacy beliefs related to chronic low back pain management.

Aromatherapy

Özer E, Döner Şİ, Dağ Tüzmen H. The effect of aromatherapy intervention with Bergamot and Grapefruit essential oils on premenstrual syndrome and menstrual symptoms: a randomized controlled trial. *BMC Complement Med Ther.* 2025 May 1;25(1):162. doi: 10.1186/s12906-025-04857-3. PMID: 40312670; PMCID: PMC12044709.

Background: Premenstrual syndrome and menstrual symptoms adversely affect approximately 80-95% of women of reproductive age. Aromatherapy interventions are used to reduce premenstrual syndrome and menstrual symptoms. This study was conducted to determine the effect of aromatherapy intervention with bergamot and grapefruit essential oils on premenstrual syndrome and menstrual symptoms.

Methods: Ninety women with premenstrual syndrome were included in the study. Participants were randomly divided into 3 groups: Bergamot ($n = 30$), Grapefruit ($n = 30$), Placebo ($n = 30$). Participants in each group were made to smell pure essential oil for 30 min 3 times a day for 4 days during the luteal phase of the menstrual cycle. The used was repeated in 3 menstrual cycles. "Premenstrual Syndrome Scale (PMSS)" was used to evaluate premenstrual syndrome and "Menstrual Symptom

Questionnaire (MSQ)" was used to evaluate menstrual symptoms. All measurements were performed before and after the study.

Results: The results showed that grapefruit essential oil was effective in reducing PMSS total score ($p = 0.010$) and sub-scale scores (depressive affect, anxiety, fatigue, depressive thoughts, appetite changes, sleep changes and bloating ($p < 0.001$), irritability ($p = 0.024$), pain ($p = 0.047$)). Although grapefruit essential oil had no effect on the total score of the MSQ. Grapefruit essential oil was found to be effective in reducing the MSQ scale sub-scale scores (menstrual pain symptoms ($p = 0.024$) and the use of coping methods with menstrual pain ($p = 0.011$)). Bergamot essential oil was found to be effective in reducing PMSS total score ($p = 0.001$) and PMSS sub-scale scores depressive affect ($p = 0.013$), irritability ($p = 0.034$), depressive thoughts and appetite changes ($p = 0.026$), pain ($p = 0.001$)). In addition, there was no effect on the menstrual syndrome scale and its sub-dimensions ($p > 0.05$).

Conclusion: Grapefruit essential oil was effective in reducing both premenstrual syndrome and menstrual symptoms, whereas bergamot essential oil was only effective in reducing premenstrual symptoms.

Öner U, Cengiz Z, Erol A. Effects of Thyme Oil on Respiratory Systems, Hemodynamic Parameters and Vital Signs in COPD Patients: A Randomized Controlled Trial. *Holist Nurs Pract.* 2025 Apr 23. doi: 10.1097/HNP.0000000000000745. Epub ahead of print. PMID: 40262016

The present study aimed to determine the effects of aromatherapy through thyme oil inhalation on respiratory symptoms, hemodynamic parameters and vital signs in COPD patients. The pre-test post-test randomized controlled experimental study was conducted with inpatients COPD (intervention group = 60, control group = 60). Data were collected using the "Patient Information Form", "COPD Symptoms Form", and "Hemodynamic



Parameters and Vital Signs Monitoring Form" as well as a saturation device. Following the pre-test, patients in the intervention group inhaled thyme oil 3 times a day for 5 days but the control group did not receive anything. COPD symptoms and hemodynamic parameters were measured on the fifth day as the post-test. Vital signs were measured and recorded 3 times every day over 5 days. It was found that thyme oil application through inhalation significantly reduced all COPD symptoms (dyspnea, cough, secretion, etc.) in the intervention group compared to the control group. pH and O₂ levels were higher while CO₂ levels were lower in the intervention group, and as of the third day, saturation levels were higher whereas respiratory rates were lower. In this regard, thyme oil is recommended as a non-pharmacological treatment method for COPD patients.

Chang KM, Whu SW, Shen TS, Lai YJ. Vetiver and Orange Blossom Aid in Lowering Blood Pressure and Heart Rate and Improving Sleep Quality. *Holist Nurs Pract.* 2025 Apr 22. doi: 10.1097/HNP.0000000000000738. Epub ahead of print. PMID: 40261984.

Aromatherapy has emerged as a prominent therapeutic modality, particularly for individuals grappling with insomnia and stress. This study delves into the sleep patterns of a general population and evaluates the impact of 3 distinct essential oils over a 4 to 6-week period. The study rigorously assesses changes in sleep quality and various cardiovascular parameters before and after the utilization of these essential oils. A total of 67 participants completed the Pittsburgh Sleep Quality Index (PSQI) questionnaire and expressed their willingness to partake in the experiment through an online platform. Subsequently, the participants underwent comprehensive measurements of cardiovascular and autonomic nervous system parameters. Following random assignment into 1 of 3 groups, the subjects diligently used the prescribed essential oils for the specified duration. A posttest was conducted to meticulously document the changes in cardiovascular and autonomic nervous

system parameters, as well as the PSQI scale. The 3 essential oils employed were lavender, vetiver, and orange blossom, with 21, 18, and 17 participants, respectively. The experimental findings revealed a noteworthy reduction in PSQI scores after 4 to 6 weeks of using vetiver and orange blossom essential oils. The scores decreased from 7.92 (3.55) and 8.32 (3.71) to 6.08 (3.30, $P = .007$) and 6.47 (2.20, $P = .042$), respectively. This reduction was even more pronounced among subjects with initial PSQI scores of 5 or higher. Furthermore, the utilization of vetiver and orange blossom essential oils demonstrated a significant reduction in systolic blood pressure (SYS) over the 4 to 6-week period. Vetiver SYS levels decreased from 108.39 (5.67) to 105.33 (5.93) ($P = .0016$), and orange blossom SYS levels decreased from 110.53 (9.49) to 108.18 (9.49) ($P = .0414$). In addition, the heart rate of the vetiver group also exhibited a significant decrease from 78.33 (12.06) to 76.00 (12.06) ($P = .0342$). Thus, the results strongly suggest that vetiver and orange blossom essential oils contribute to the reduction of blood pressure, heart rate, and the enhancement of sleep quality, particularly in individuals experiencing sleep disturbances. These findings align with previous research on the soothing effects of essential oils and their potential in promoting both cardiovascular and sleep-related well-being.

Complementary therapies

Aitchison KA, McFerran KS. Child and Adolescent Mental Health Music Therapy Assessment: A Critical Interpretive Synthesis. *J Music Ther.* 2025 Jan 10;62(1):thaf005. doi: 10.1093/jmt/thaf005. PMID: 40336261.

Recovery-oriented mental health care emphasizes hope, empowerment, personally defined recovery, and the importance of systemic change and action on the social determinants of mental health and wellbeing. It has been argued that music therapy is highly compatible with recovery principles. This critical interpretive synthesis explores published music therapy assessments designed for use with children and adolescents experiencing

mental health challenges, including assessment development, contextual influences, and potential applications in recovery-oriented mental health settings. Database searches, citation tracking, and hand searching identified nine relevant publications (1988-2019), reflecting eight separate assessments. Publications describe the assessment of multiple domains to inform planning; use a range of quantitative rating scales and qualitative descriptions; focus on information sharing and enhancing credibility; and reveal the influence of verbal psychotherapeutic models. Some assessments use terminology that was common in the era that they were published but are not considered congruent with recovery-oriented care. An emphasis on clinician dominance and duplication of information collected by other professionals in interdisciplinary settings is also apparent, potentially affecting usability in mental health services. Exploration of musical phenomena is evident in all assessments and may offer a unique contribution to interdisciplinary processes. Although a significant focus on individual pathology is evident, consumers' resources and contexts are explored in many of the music therapy assessments. This synthesis reveals a need to explore and develop music therapy assessment practices that align with recovery-oriented principles to meet consumer needs and improve integration in interdisciplinary contexts.

Vagedes J, Breitzkreuz T, Heinrich V, Sobh M, Islam MOA, Vagedes K, Mergelsberg J. Whole-body hyperthermia as part of a multimodal treatment for patients with post-covid syndrome - a case series. *Int J Hyperthermia.* 2025 Dec;42(1):2488792. doi: 10.1080/02656736.2025.2488792. Epub 2025 May 7. PMID: 40336247.

Background: Post-Covid syndrome (PCS) has been an ongoing challenge since the COVID-19 pandemic. Relatively little is known about the effect of whole-body hyperthermia (WBH) in the treatment of PCS.

Methods: We retrospectively analyzed the data of patients with PCS who were



treated as inpatients with a multimodal integrative therapy approach including WBH. The primary outcome comprised changes in Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F) between T0 (at hospital admission) and T2 (four weeks after discharge), secondary outcomes were changes in Fatigue Impact Scale (FIS-D), Multidimensional Dyspnea Profile (MDP) and Covid-Associated Symptoms (CAS) between T0-T1 (at discharge) and T0-T2.

Results: FACIT-F yielded a significant increase ($p < 0.001$) between T0 (19.1 ± 8.4) and T2 (29.9 ± 13.0) (primary outcome), indicating an improved health status. While FIS-D and CAS scores improved significantly between T0 and T2, dyspnea parameters improved only between T0 and T1. 63% of respondents identified WBH as an effective treatment.

Conclusions: Study results provide preliminary evidence for potentially positive effects of WBH in the setting of this study, in which it is embedded in a multimodal therapy approach. The results should be substantiated by future RCTs to identify specific effects of individual therapy components.

Herbal medicine

Pala B, Nardoianni G, Gualtieri P, Frank G, Perrone MA, Di Renzo L, Tocci G.

Cardiometabolic Effects of *Nigella sativa* in Postmenopausal Women with Hypertension: A Prospective, Observational, Pilot Study. *Nutrients*. 2025 Mar 11;17(6):985. doi: 10.3390/nu17060985. PMID: 40338252.

Background: Hypertension is a prevalent condition, impacting a significant amount of general population and contributing prominently to global mortality. Increasing attention has been directed towards phytotherapy products as potential complementary or alternative therapies for hypertension prevention and treatment. Among these, *Nigella sativa* (NS) has shown encouraging effects in improving cardiovascular parameters. This study aimed to evaluate the efficacy of NS supplementation in reducing seated office systolic blood

pressure (BP) in postmenopausal women. We also explored the dose-dependent effects of this intervention on BP levels and metabolic parameters.

Materials and Methods: We conducted an observational pilot study including 52 women, who were stratified into two active groups ($n = 32$) receiving two different dosages of NS ($n = 16$, age 54.2 ± 2.3 at 400 mg/day and $n = 16$, age 52.3 ± 2.4 at 800 mg/day) and a control group ($n = 20$, age 53.9 ± 3.0). Participants were evaluated at baseline (T0), at 4 (T1) and 8 weeks (T2) for office brachial and central BP, heart rate (HR), lipid profile, body weight, and menopausal symptoms.

Results: NS supplementation significantly reduced office systolic and diastolic BP in a dose-dependent manner ($p < 0.01$), with more pronounced reductions at 800 mg/day. Improvements in climacteric symptoms and reduced HR were observed as early as T1, while metabolic parameters, including lipid profile and weight, showed significant changes at T2. Notably, the 800 mg/day dosage group also experienced significant reductions in weight and body mass index. Younger age, more recent menopausal transition, and elevated baseline HR were identified as predictors of a better response to treatment.

Conclusions: NS supplementation demonstrates significant dose-dependent benefits in reducing office BP and improving metabolic parameters. These findings support the role of NS as an effective complementary therapy in hypertension management in postmenopausal women.

Ebrahim YM, Sadek MA, Sabry MO, Lotfy RM, El-Dessouki AM, Abou-Hussein D, El-Shiekh RA, ElBishshy RM. Integrative sleep management: from molecular pathways to conventional and herbal treatments. *Naunyn Schmiedeberg's Arch Pharmacol*. 2025 May 8. doi: 10.1007/s00210-025-04183-y. Epub ahead of print. PMID: 40338321.

Sleep is regarded as one of the most crucial factors in keeping a healthy lifestyle. To function normally, a person

needs at least 6-8 h of sleep per day. Sleep influences not only our mood but also the efficiency with which we complete tasks. Sleep disorders exhibit diverse etiologies across different conditions and populations, with genetic and environmental factors playing a significant role in their development. Many issues emerge as a result of inadequate sleep. Unhealthy food and lifestyle choices have increased our susceptibility to sleep disorders. A well-balanced diet rich in essential vitamins and minerals can have a profound impact on sleep patterns, enhancing both the duration and quality of rest. The primary categories of sleep disorders include insomnia, sleep apnea (SA), narcolepsy, parasomnias, circadian rhythm disorders, and restless legs syndrome (RLS). The drugs used to treat sleep disorders are primarily habit-forming and have a history of withdrawal effects. This insufficiency in medication has prompted the hunt for newer, better options. Nutraceuticals are well-suited to the treatment of such illnesses. Its non-toxic, non-habit-forming properties, and practical efficiency have made it an outstanding choice. This review provides nutraceuticals used in sleep disorders. A comprehensive literature search was conducted utilizing several databases, including Google Scholar, Elsevier, Springer Nature, Wiley, PubMed, and EKB. Nutraceuticals are products that employ food or dietary components to treat or prevent disease. In the therapy of sleep disorders, nutraceuticals such as *Artemisia annua*, valerian, rosemary, jujube, Passionflower, lemon balm, ashwagandha, kava-kava, lavender, and chamomile have been shown to have remarkable benefits. These remedies exert their effects through multiple mechanisms, both directly by modulating neurotransmitter and hormonal pathways within sleep circuits, and indirectly by enhancing sleep quality through the alleviation of stress, inflammation, and oxidative stress. Clinical studies were piloted to validate the efficacy of natural sleep aids. Future research should focus on elucidating the precise mechanisms through which natural products influence sleep.



Sethi SS, Bhardwaj T, Sethi SK, Kaur S, Rimpi, Baldi A. Advancing herbal medicine safety: the need for a global pharmacovigilance approach. *Naunyn Schmiedebergs Arch Pharmacol.* 2025 May 8. doi: 10.1007/s00210-025-04066-2. Epub ahead of print. PMID: 40338319.

Herbal and traditional medicines (H&TMs) form a significant part of healthcare practices worldwide, often perceived as safe alternatives to conventional treatments. However, this perception has led to challenges in ensuring the safety and efficacy of these products, highlighting the critical importance of pharmacovigilance for herbal medicines. Over the past two decades, concerted efforts have been made globally to establish robust regulatory frameworks, leading to the emergence of phytovigilance systems. This review provides a comprehensive overview of the pharmacovigilance mechanisms in various countries, emphasizing recent developments, persistent challenges, and international perspectives in the field. The study underscores the need for systematic monitoring of adverse events (AEs) associated with herbal medicines to safeguard patient health. A key focus is placed on comparing the processes and mechanisms employed by different nations in building up safety monitoring systems, identifying gaps in knowledge and practices, and evaluating stakeholder awareness and involvement. The findings highlight the necessity of harmonizing global regulations under the guidance of the World Health Organization (WHO) to ensure uniformity and efficacy in reporting systems. This article advocates for a collaborative international approach, inclusive of all regulatory agencies, to enhance the safety of herbal therapies. By proposing comprehensive, standardized guidelines, it aims to bridge existing gaps and strengthen the pharmacovigilance infrastructure for herbal medicines globally, paving the way for improved patient safety and trust in traditional medical practices.

Piras A, Porcedda S, Smeriglio A, Trombetta D, Piras F, Sogos V, Rosa A. *Chemical*

Composition and Bioactivity of Extracts Obtained from *Prunus spinosa* Seeds by Supercritical CO₂ Extraction. *Molecules.* 2025 Apr 14;30(8):1757. doi: 10.3390/molecules30081757. PMID: 40338265.

This study investigates the potential reuse of *Prunus spinosa* (blackthorn) seeds, a food industry by-product. Traditionally discarded, these seeds are now being explored for their bioactive compounds. In this work, seeds were used as raw material for supercritical CO₂ extraction. Two distinct extracts were obtained at low and high pressure (SFE90 and SFE200) and both extracts presented an aqueous phase (WE90 and WE200). SFE90 analysis by GC/MS allowed us to identify benzaldehyde and fatty acids (mainly oleic and linoleic acids). The fatty acid profile of SFE200, determined by HPLC-DAD/ELSD, showed that oleic and linoleic acids were predominant in supercritical oil. The phytochemical composition of the water extracts, analyzed via LC-DAD-ESI-MS, revealed that higher pressure enhanced the recovery of specific flavonols and anthocyanins, while lower pressure preserved various polyphenolic subclasses. WE90 was rich in 3-feruloylquinic acid and cyanidin-3-O-rutinoside, whereas WE200 was rich in caffeic acid hexoside 2 and dihydro-*o*-coumaric acid glucoside. Benzaldehyde was individuated in WE90 and WE200 by HPLC-DAD analysis. Cytotoxicity assays demonstrated that WE90, WE200 and SFE200 had anticancer effects on SH-SY5Y neuroblastoma cells, while all extracts did not remarkably affect the viability and morphology of human skin keratinocytes (HaCaT cells). These results suggest that *P. spinosa* seed extracts have potential nutraceutical and pharmaceutical applications.

Homeopathy

Liekiefett L, Becker JC. Can homeopathy cure all diseases? Subgroups of homeopathy users based on beliefs about whether and how homeopathy should be used to treat serious conditions. *Public Underst Sci.* 2025 May 8;9636625251332524. doi: 10.1177/09636625251332524. Epub ahead of print. PMID: 40338045.

Can homeopathy cure all diseases? Depending on whom you ask, answers to this question might be very different. This research investigates what homeopathy users believe about (a) whether and how homeopathy should be used to treat serious conditions like cancer, and (b) science and the relevance of scientific evidence regarding homeopathy. Using latent profile analysis (N = 225), we identify subgroups of homeopathy users that differ in their normative beliefs about the use of homeopathy in serious conditions: supporters of standalone use of homeopathy in serious conditions (~9%), those who are open toward standalone use (~43%), supporters of supplementary use (~35%), and supporters of both supplementary use and nonuse in serious conditions (~13%). Subgroups that supported or were open toward the standalone use of homeopathy in serious conditions held the most negative attitudes toward science. These findings are relevant for interventions aiming to prevent the risks associated with homeopathy use.

Apahle P, Shekhar H, Dokania S. Unveiling the Potential of Cell Line Models in Homeopathic Research: A Review. *Altern Ther Health Med.* 2025 Apr 30;AT11422. Epub ahead of print. PMID: 40293848.

Background: Cell line models are indispensable in modern biomedical research, investigating cell functions and disease mechanisms. Recent studies have explored the impact of homeopathic treatments on cell lines, providing insights into their effects on differentiation, biomarker release, cytotoxicity, proliferation, and inhibition. Integrating homeopathy and cell studies enhances evidence-based practices, deepens mechanism understanding, and boosts treatment credibility and applicability.

Objective: To evaluate the interaction between homeopathic medicines and cell line models, and explore potential applications and implications for evidence-based homeopathic research.



Material and method: The present study is a systematic literature review. A literature search was conducted in electronic databases, including PubMed, SOCPUS, and Google Scholar, using combinations of keywords. The following inclusion criteria were used: studies involving cell line models; incorporating homeopathic treatments; presenting empirical data on cytotoxicity proliferation, or inhibition; and being published in peer-reviewed English-language scientific journals.

Observation/discussion: *Symphytum officinale* enhanced bone healing and regeneration in mesenchymal stem cells. Homeopathic *Viscum album* showed positive results in breast cancer cytotoxicity. Homeopathic preparations boosted natural killer cell activity in a cancer cell line. *Viscum album* extract has the potential for osteosarcoma treatment while ultra-diluted remedies induce breast cancer cell apoptosis.

Conclusion: The reviewed studies emphasize homeopathic potential in regenerative medicine, cancer therapy, and immune modulation. More research is needed to assess their clinical safety and efficacy. These findings help to advance targeted treatments, opening new medical research and practice avenues.

Konudula RD, Gorantla CSR, Athe R. Exploring Holistic Healing of Cancer: German New Medicine (GNM) and Homeopathic Treatment Beyond Traditional Therapies. *J Appl Toxicol.* 2025 Apr 24. doi: 10.1002/jat.4796. Epub ahead of print. PMID: 40273922.

The study delves into the convergence of German new medicine (GNM) and homeopathy, examining their potential to enhance treatment strategies when considered together such that GNM posits a link between emotional trauma and physical manifestations of disease, providing a specific lens through which one can examine the origins of conditions such as cancer. Homeopathy, with its holistic and individualized approach, considers a vast array of symptoms and patient

aspects. The present study debates the merits of integrating the detailed emotional analyses of GNM into the wide-ranging, symptom-based approach of homeopathy. Integration efforts are aimed at augmenting the depth of patient assessments, especially concerning the emotional etiology of diseases. The study indicated that while GNM can provide valuable insights, it should supplement rather than overshadow the comprehensive methodologies of homeopathic treatment. Future research avenues are proposed to evaluate the impact of combined GNM and homeopathic practices on patient outcomes, particularly in the domain of cancer, to uphold and possibly enhance the tradition of holistic and personalized patient care.

Fahrentrapp J, Baumgartner S, Würtenberger S, Doesburg P, Kokornaczyk MO. Emergence of Novel Patterns in Dried Droplets of Combinations of Low Potencies of Plant Extracts and Salts Compared to Single Substances: A Pilot Study. *Homeopathy.* 2025 Apr 17. doi: 10.1055/s-0045-1802598. Epub ahead of print. PMID: 40245938.

Background: Patterns in dried droplets have previously facilitated the characterization of homeopathic preparations of different substances at low potency levels. The objective of the present study was to examine combinations of plant extracts and salts in 2x and 3x potency (nominal dilution of 10⁻² and 10⁻³) and to determine which influence the plant and salt components have on the patterns of these mixtures.

Methods: We used the droplet evaporation method (DEM) to test seven plant extracts, five salt solutions and their 1:1 combinations, either in 2x or 3x potency levels. Drops of each sample were evaporated and the resulting patterns were photographed with a dark-field microscope at 25-fold and 100-fold magnification. The images were analyzed mainly visually for their characteristics; a supporting quantitative analysis was performed by means of the computer program ImageJ for several textural features.

Results: Patterns of 2x potencies showed more and richer structures than those of 3x potencies. At both tested potency levels, patterns of plant-salt potency combinations exhibited structures that were different from those of single potencies.

Conclusion: Combining homeopathic potencies led to the emergence of novel patterns differing from those formed by the single components. There were noticeable differences in the extent to which specific salts appeared to retain their characteristic patterns in relation to the plant potency with which they were combined. This pilot study has identified promising potential for the further investigation of homeopathic preparations in low dilution ranges by means of DEM, with the aim to understand better the diverse pattern-forming processes that take place in combined compared with single potency droplets. Such endeavor would help to address the current lack of fundamental research on potency combinations.

Massage, myotherapy and other bodywork

Lin S, Ye R, Wu G, Wu L, Lin Y, Li D, Xie N, Zhang H. The effect of therapeutic massage combined with conventional therapy in children with functional dyspepsia: a systematic review and meta-analysis. *Front Pharmacol.* 2025 Apr 16;16:1554438. doi: 10.3389/fphar.2025.1554438. PMID: 40331196; PMCID: PMC12053014.

Background: Therapeutic massage has been widely used for functional dyspepsia (FD) in children. Emerging evidence suggests that it serves as an effective complementary therapy for pediatric FD. However, no related systematic reviews have been published to date.

Objective: To conduct a systematic review and meta-analysis to evaluate the effectiveness of therapeutic massage in conjunction with conventional therapy for children with FD.

Methods: A search was conducted across PubMed, the Cochrane Library, and nine additional databases, up to November



2024. We included randomized controlled trials (RCTs) that recruited children with functional dyspepsia. These trials compared therapeutic massage combined with conventional therapy to conventional therapy alone. Dichotomous symptom data were aggregated to calculate the relative risk (RR) of overall response following therapy. Continuous data were aggregated utilizing a standardized mean difference with a 95% confidence interval.

Results: The search identified 1,190 citations. Twelve RCTs were eligible for inclusion, which contained 1,161 patients. The response rate of combination therapy, which includes therapeutic massage alongside conventional therapy, was found to be superior to that of conventional therapy alone. Subgroup analysis indicated that both point massage and chiropractic, when combined with conventional therapy, also demonstrated superior response rates compared to conventional therapy alone. Subgroup analysis of the frequency of intervention over a 2-week duration of therapeutic massage indicated that the overall response rates for combination therapy at frequencies of five times per week and seven times per week were superior to those of conventional therapy. In comparison to conventional therapy, combination therapy markedly reduced symptom scores related to abdominal pain, flatulence, anorexia, eructation, nausea and vomiting, and early satiety. Additionally, it enhanced levels of growth hormone-releasing peptide, neuropeptide Y, motilin, and gastrin, while decreasing levels of 5-hydroxytryptophan.

Conclusion: Results demonstrated that compared to conventional therapy, therapeutic massage combined with conventional therapy can significantly reduce symptoms and enhance gastrointestinal hormone levels in children with functional dyspepsia. However, due to the heterogeneity of the findings and the low quality of evidence, further extensive and methodologically sound trials are necessary to validate whether therapeutic massage can serve as an effective complementary therapy for pediatric functional dyspepsia.

Karimiahmadabadi A, Sohani SM, Tabatabaei A, Limouei G. The effects of focused extracorporeal shockwave therapy versus deep friction massage in supraspinatus tendinopathy: A randomized controlled trial. *J Bodyw Mov Ther.* 2025 Jun;42:823-830. doi: 10.1016/j.jbmt.2025.01.035. Epub 2025 Jan 30. PMID: 40325761.

Purpose: The purpose of this study was to compare the efficacy of extracorporeal shock wave therapy (ESWT) and deep friction massage (DFM) in treating supraspinatus tendinitis in non-professional athletes.

Methods: Thirty-two non-professional athletes diagnosed with supraspinatus tendinitis were randomly assigned to either the ESWT group with therapeutic exercise or the DFM group with therapeutic exercise. Outcome assessments were conducted before the intervention, after 12 sessions, and one week later. The primary outcomes measured were pain intensity and the pressure pain threshold (PPT) of the supraspinatus and deltoid muscles. Secondary outcomes included shoulder abduction, external rotation, supraspinatus strength, and quality of life. Between-group comparisons were performed using one-way ANOVA/ANCOVA, and effect sizes were calculated.

Results: The group × time interaction was significant for pain ($p = 0.011$), PPT ($p = 0.04$), and shoulder abduction ($p = 0.04$), while no significant interaction was found for shoulder external rotation or supraspinatus strength ($p > 0.05$). Within-group analysis revealed significant improvements in all outcomes compared to baseline in both groups. Between-group comparisons demonstrated the superior effectiveness of shockwave therapy in improving pain ($p = 0.024$, effect size = -0.84), increasing the PPT of the supraspinatus ($p = 0.0001$, effect size = 1.65) and deltoid ($p < 0.0001$, effect size = 2.61), and enhancing shoulder abduction ($p = 0.001$, effect size = 1.31). Effect sizes indicated high efficacy (greater than 0.8) favoring shockwave therapy. However, no significant differences were observed

between the groups in shoulder external rotation ($p = 0.2$), supraspinatus strength ($p = 0.42$), or quality of life ($p = 0.97$).

Conclusions: This study concludes that shockwave therapy is significantly more effective than deep friction massage for managing supraspinatus tendinitis.

Maan KS, Yadav RC. Comparative evaluation of recovery interventions-individually and in combination-on lactate clearance and physical performance metrics following 3 versus 3 basketball matches. *J Bodyw Mov Ther.* 2025 Jun;42:431-440. doi: 10.1016/j.jbmt.2025.01.022. Epub 2025 Jan 18. PMID: 40325703.

Objectives: The study evaluates the effects of active recovery, massage therapy, and foam rolling-both individually and combined-on recovery after 3v3 basketball matches, focusing on lactate levels, sprint performance, explosive strength, and agility to identify the most effective recovery strategy.

Design & setting: Using a within-within group design with repeated measures, the study recorded data on physiological and physical variables before, immediately after, and at 10- and 15-min post-match, including blood lactate, sprinting ability, explosive strength, and agility.

Participants: Twenty-one male basketball players, aged 18-25 years, were purposively selected from Haridwar district, Uttarakhand. All participants had prior competitive experience, having competed in either the INBL or Red Bull Half Court Tournament.

Results: Post-match lactate levels averaged 10.0 mmol/L, dropping to 4.4 mmol/L by 15-min. Active recovery combined with foam rolling improved lactate clearance and performance metrics more effectively than active recovery alone or with massage therapy, which showed better explosive strength recovery but less efficient lactate clearance.

Conclusion: Active recovery with foam rolling was more effective for immediate



lactate clearance and agility compared to active recovery with massage therapy, highlighting the need for personalized recovery strategies due to individual variability in responses.

Narenthiran P, Granville Smith I, Williams FMK. Does the addition of manual therapy to exercise therapy improve pain and disability outcomes in chronic low back pain: A systematic review. *J Bodyw Mov Ther.* 2025 Jun;42:146-152. doi: 10.1016/j.jbmt.2024.12.004. Epub 2024 Dec 10. PMID: 40325660.

Background: Low back pain (LBP) is a common musculoskeletal problem and the leading cause of disability worldwide. Manual therapy and exercise therapy are used by physiotherapists to treat LBP. The evidence base for exercise is strong, however less so for manual therapy. We investigated whether manual therapy in addition to exercise provides improvements in pain and disability outcomes over exercise alone for LBP.

Methods: A PRISMA guided systematic review protocol was developed. PubMed, Ovid and Web of Science were searched for randomised controlled trials (RCTs) which compared manual therapy plus exercise with exercise alone for LBP patients. Participants consisted of adults and older adults suffering from chronic back pain for over three months, recruited by researchers following examination by a health professional. Exercise prescriptions consisted of strengthening, stretching and stabilisation exercises. Manual therapies included spinal manipulation, massage, soft tissue mobilisation, myofascial release and muscle energy technique. The main outcome measures were pain (VAS, The McGill Pain Questionnaire) and disability (ODI, Quebec Back Pain Disability Scale). Secondary outcome measures included quality of life, flexibility, strength, spinal mobility, satisfaction.

Results: Ten studies met the inclusion criteria: eight reported pain and/or disability improvements with the addition of manual therapy, two reported no benefit.

Conclusions: This systematic review found that manual therapy as an adjunct to exercise provides increased improvements in short-term pain, function and disability outcomes than exercise alone in the management of LBP. The addition of manual therapy is recommended for at least short-term pain and disability relief in LBP patients.

Liu D, Lin TY, Yu TY, Wu F, Zhang YQ, Liu JY, Sun JW, Zhang HY. Effectiveness and safety of Tuina massage therapy for paediatric fever: a systematic review and meta-analysis of randomised controlled trials. *BMC Pediatr.* 2025 May 1;25(1):343. doi: 10.1186/s12887-025-05441-x. PMID: 40312678; PMCID: PMC12044972.

Objective: To systematically analyse the efficacy and safety of Tuina massage therapy for paediatric fever.

Methods and results: A search was conducted across PubMed, Embase, Cochrane Central Register of Controlled Trials and China National Knowledge Infrastructure databases, and it retrieved relevant randomised controlled trials (RCTs) up to November 2023. Fifteen trials (1,661 pediatric patients) were included, focusing on Tuina massage and tepid water massage. Studies were excluded due to: duplicate data, irrelevant types, incomplete outcomes and use of other interventions. The Cochrane RoB tool was employed to assess methodological quality, and the GRADE approach was used to evaluate the certainty of evidence. The review was registered with the International Platform of Registered Systematic Review and Meta-analysis Protocols (INPLASY), registration number INPLASY202270041, following PRISMA 2020 guidelines. Massage treatment (120 min) showed a non-significant difference (standardized mean difference [SMD]: 0.68; 95% CI: -0.31-1.67) compared with antipyretic medication. However, combining antipyretic medication and massage significantly reduced fever (SMD: 0.90; 95% CI: 0.50-1.30). Subgroup analysis indicated traditional Chinese Tuina massage significantly reduced pediatric fever (relative risk [RR]: 0.41; 95% CI: 0.26-0.65).

Conclusion: This meta-analysis suggests that traditional Chinese Tuina may be a promising adjunctive therapy for pediatric fever. Careful consideration of each child's specific conditions is necessary to ensure safety and comfort. Future research should enhance study design quality and broaden the scope of non-pharmacological treatment methods.

Kubasch J, Ortiz M, Binting S, Roll S, Icke K, Dietzel J, Nögel R, Hummelsberger J, Willich SN, Brinkhaus B, Teut M, Siewert J. Hydrotherapy and acupressure in restless legs syndrome: results of a randomized, controlled, three-armed, pilot study (HYDRAC-study). *Front Med (Lausanne).* 2025 Apr 16;12:1571045. doi: 10.3389/fmed.2025.1571045. PMID: 40309736; PMCID: PMC12041014.

Study objectives: Non-pharmacological interventions for restless legs syndrome (RLS) are frequently used, although scientific evidence remains limited. The study aimed to investigate the feasibility and effects of self-applied hydrotherapy and self-applied acupressure in patients with RLS.

Methods: In a three-armed randomized single-center open exploratory pilot study, adults with moderate to severe RLS were randomly allocated to 6 weeks of daily hydrotherapy plus routine care (HT group), acupressure plus routine care (AP group), or routine care alone (RC group). Outcome measures included RLS symptom severity (IRLS), disease-specific quality of life (RLSQoL), the impression of change (PGI-C), health-related quality of life (SF-12), psychological outcomes (SGW-B, HADS, and GSE), and adherence and adverse events (AEs) after 6 and 12 weeks.

Results: Fifty-four adults (mean age 57.5 ± 11.4 years, 63% women) were included. The study showed good feasibility with an 83% retention rate. After 6 weeks, baseline-adjusted mean IRLS scores were 19.8 (95% [16.4, 23.2]) for HT, 22.9 (19.2, 26.6) for AP, and 24.0 (20.8, 27.2) for RC. RLSQoL adjusted means were 65.3 (59.7, 70.9) for HT, 68.3 (62.3, 74.3) for AP, and 56.2 (50.9, 61.5) for RC, after 6 weeks. Both interventions were safe, with high adherence rates.



Conclusion: Self-applied hydrotherapy and acupressure appear to be feasible and safe interventions for patients with RLS. This exploratory pilot study suggests potential benefits, though larger, well-designed confirmatory studies are needed to validate these findings.

Clinical trial registration: This study was registered in the German Clinical Trials Register (number DRKS00029960) on August 09, 2022. <https://drks.de/search/de/trial/DRKS00029960>.

Nutrition

Mann P, Jangra G, Saini K, Narwal S, Dhingra AK, Singh G. Nutraceuticals in Depression Management: Current Evidence and Perspectives. *Recent Adv Food Nutr Agric.* 2025 May 7. doi: 10.2174/012772574X361750250323111150. Epub ahead of print. PMID: 40337958.

Background: Depression is a common psychiatric disorder characterized by feelings of sadness, diminished interest in activities, and disruptions in sleep patterns. Pharmacotherapy, which often involves the use of antidepressant medicines, are method for managing depression. There are potential negative effects linked to the utilization of these medicines, even though many people have found them to be beneficial.

Objective: Traditional pharmacological therapies for depression can have a variety of adverse effects or drawbacks. To overcome these constraints, nutraceuticals have come into the picture of interest. Nutraceuticals, which are naturally derived compounds with potential therapeutic benefits, have attracted interest as an innovative approach to treating depression. In this review, the efficacy of nutraceuticals in depression will be discussed.

Methods: To find pertinent research on nutraceuticals in the treatment of depression, a thorough literature analysis was enacted. Studies investigating the significance of nutraceuticals on depression signs, patent perspectives, and clinical studies were included.

Results: The findings suggest that several nutraceuticals, including omega-3 fatty acids, dietary fibers, and phytochemicals, including Ashwagandha and valerian, exhibit antidepressant effects. These compounds have shown promising results in improving depressive symptoms, enhancing neuroplasticity and neurogenesis, and regulating neurotransmitter imbalances.

Conclusion: Nutraceuticals offer a novel approach to depression, providing potential benefits in alleviating depressive symptoms. Correlative review suggests that increasing intake of these substances could be an alternate method for delaying the early symptoms and course of depression. Supplementation with dietary fibers, Omega-3 fatty acids, and phytochemicals can be utilized as a complementary strategy for antidepressant therapy.

Li X, Xue T, Zhou ZF, Jiang WB, Wei H, Li CC, Jiang YM. Chain mediating effect of frailty and depression between nutrition and quality of life in elderly stroke patients. *Psychol Health Med.* 2025 May 8:1-15. doi: 10.1080/13548506.2025.2502843. Epub ahead of print. PMID: 40338553.

Elderly stroke patients generally have a lower quality of life. This study aimed to investigate the mediating role of frailty and depression in the relationship between nutrition and quality of life in elderly stroke patients. The researcher used the convenience sampling method to select 193 cases of elderly stroke patients who were admitted to the Department of Neurology of a tertiary general hospital in Qingdao from July 2023 to March 2024, and the questionnaires were investigated using the General Information Questionnaire, the Tilburg Frailty Assessment Index Scale (TFI), the Depression Screening Scale (PHQ-9), the Simplified Quality of Life Scale for Stroke Patients (SV-SS-QoL), and the Mini-Nutrition Assessment Scale (MNA-SF). The incidence of malnutrition was 47.2% in elderly stroke patients, whereas the quality of life score was 43.00 (40.00, 47.00), frailty was 6.00 (2.00, 8.00), and depression was 6.00 (4.00, 7.00). The

mediating effect analysis showed that the chain mediating effect of frailty and depression on nutrition and quality of life in elderly stroke patients was significant, with a total indirect effect of 0.155, the mediating effect of depression as the mediating variable accounted for 54.2% of the total indirect effect, the mediating effect of frailty as the mediating variable accounted for 25.2% of the total indirect effect, and the chain mediating effect of frailty and depression between nutrition and quality of life of elderly stroke patients accounted for 20.6% of the total indirect effect. It is proven that in elderly stroke patients, depression and frailty have a chain mediating effect on nutrition and quality of life. Healthcare professionals should quickly do nutritional assessments and take the necessary actions to enhance patients' nutritional status, prevent depression and frailty, and enhance their quality of life.

Li L, Hu L, Chen R, Yang R, Gong L, Wang J. The Particle Size of Wheat Bran Dietary Fiber Influences Its Improvement Effects on Constipation. *Foods.* 2025 Mar 15;14(6):1001. doi: 10.3390/foods14061001. PMID: 40338251.

Wheat bran dietary fiber (WBDF) is a potential functional additive to enrich products used for relieving constipation. The purpose of this study was to understand the effects of different particle size ranges (mean sizes of 84.14, 61.74, 37.39, and 22.33 μm) of WBDF on constipation. With the decrease in particle size, its morphology exhibited an increase in fiber fragmentation, larger pore sizes, and the formation of structural faults. The oil-holding capacity (OHC) and swelling capacity (SC) of WBDF were found to change with particle size, with the highest OHC observed at 37.39 μm and the greatest SC at 84.14 μm . Animal experiments demonstrated that the WBDF of smaller particle sizes significantly alleviated loperamide-induced constipation with an increased intestinal propulsion rate, decreased first melanin excretion time, and reduced gastric residual rate. Meanwhile, WBDF samples markedly increased serum MTL and serum AChE levels. Notably, compared with



the constipation model (CMNC) group, the small intestinal propulsion rate in the MPS40 group increased by 41.21%, and the gastric residue rate significantly decreased by 19.69%. The improvement in constipation symptoms was most pronounced. Additionally, the abundance of *Lactobacillus* in the MPS40 group increased by 52.52%, while the relative abundance of *Prevotella* decreased by 83.55%, and the diversity of the gut microbiota was altered. These findings provide valuable insights into the potential commercial applications of WBDF in fiber-enriched functional foods to support intestinal health.

Wei S, Qian J, Zou M, Qian Y, Zhou W, Gu Y, Tang L, Liu H, Zhang C. Non-linear relationship between Dietary Inflammatory Index and constipation: threshold identification and insights from NHANES [2005-2010] and Mendelian randomization analysis. *Transl Gastroenterol Hepatol.* 2025 Mar 14;10:25. doi: 10.21037/tgh-24-99. PMID: 40337765; PMCID: PMC12056116.

Background: With the acceleration of the pace of life and changes in dietary habits, functional gastrointestinal

disorders, especially constipation, have become a significant public health issue affecting health and quality of life of people worldwide. Given the limitations of traditional treatments, adjusting dietary structure has become a more economical and convenient therapeutic approach. We aimed to explore the associations between the Dietary Inflammatory Index (DII) and constipation in this study.

Methods: This study was based on the National Health and Nutrition Examination Survey (NHANES) data from 2005-2010, utilizing bowel movement frequency and stool characteristics questionnaires to determine constipation status, and calculating the DII based on 24-hour dietary recall data. To assess the relationship between the DII and constipation, we employed three models, which were further explored through inverse probability of treatment weighting (IPTW), restricted cubic splines (RCS) analysis, and Mendelian randomization.

Results: Individuals with a higher DII exhibited a higher risk of constipation.

In the unadjusted model, participants in the highest quartile (Q4) had a 2.85-fold increased risk of constipation compared to those in the lowest quartile (Q1) [odds ratio (OR): 2.85; 95% confidence interval (CI): 1.78-4.56; $P < 0.001$], with similar results observed in various adjusted models and IPTW adjusted models. RCS analysis revealed a nonlinear relationship between the DII and constipation, with a threshold value (DII = 0.974) beyond which the risk of constipation significantly increased. Subgroup analysis showed that gender, income level, and diabetes status affected the relationship between the DII and constipation. Mendelian randomization analysis did not find any significant causal relationships for components of the DII, except for energy intake.

Conclusions: There is a nonlinear relationship between the DII and the risk of constipation, with a threshold value of 0.974, and differences in the risk of constipation associated with the DII across different income, gender, and diabetes status groups. These findings provide a basis for using the DII as a strategy for the prevention and intervention of constipation.

SPECIAL ISSUE

CALL FOR PAPERS

Natural Medicine Approaches to Attention-Deficit/Hyperactivity Disorder (ADHD)

There has been a significant spike over the past few years in the number of people diagnosed with ADHD. ADHD is a psychological condition that can cause people to experience difficulty focusing, organising and managing time. People with ADHD are often impulsive and frequently creative thinkers and good problem solvers.¹ In Australia today, almost a million people have ADHD, according to the ADHD Foundation Australia.² ADHD medication levels have more than doubled in the past 5 years, with considerable cost to taxpayers through the Pharmaceutical Benefits Scheme (now at \$151.96 million).³ Globally ADHD now ranks among the most common mental health conditions.²

The Journal welcomes submissions describing natural medicine approaches to ADHD. These can include articles based on clinical experience, case studies, literature reviews, and articles of original research.

REFERENCES

1. Reachout Australia. ADHD: Everything you need to know. 2025. [Cited April 27, 2025]. Available from: https://au.reachout.com/challenges-and-coping/adhd/everything-you-need-to-know-about-adhd?gad_source=1&gclid=Cj0KCQjwiLLABhCEARisAJYS6ukt8qqv3fXBoS1ns4j9yuuQ8qugH3NlCgpdxe2orDD
2. ADHD Foundation Australia. People diagnosed with ADHD. 2025. [Cited April 27, 2025]. Available from: <https://adhdfoundation.org.au>
3. Hooton A. Why has everyone suddenly got ADHD? *The Age.* 2024, March 9. Available from: <https://www.theage.com.au/national/why-has-everyone-suddenly-got-adhd-20240214-p5f4rr.html>



Submissions due: 24 October, 2025

sandra.grace@atms.com.au



PROVIDER TERMS AND CONDITIONS ARE LOCATED ON OUR WEBSITE UNDER THE HEALTH FUNDS TAB.

The Four Pillars to remain current with Health Fund Registration

1. Maintain ATMS Membership
2. Maintain current First Aid
3. Maintain current Professional Indemnity Insurance (Chinese Medicine practitioners require a minimum of \$5 million and Remedial Massage practitioners require a minimum of \$2 million)
4. CPE (continuing professional education) (ATMS accepts completed CPE that enhances clinical practice however Health Funds require CPE to be modality specific)

Acupuncture and Chinese Herbal Medicine practitioners must hold current AHPRA registration

Working With Children

Practitioners working with under 18's MUST hold a current WWC (Working With Children Check) in their practising state. Please send ATMS a copy to info@atms.com.au

Additionally to holding a current WWC, ATMS require that the parent of the child or guardian MUST be present during the consultation.

Current renewal certification is essential

Please forward all renewals ASAP to prevent disruption of your health fund provider registration: renewals of your insurance, first aid, AHPRA registration and WWC to info@atms.com.au as ATMS must hold a current copy at all times for health fund compliance.

*Lapsed membership, insurance or first aid, or non-compliance with CPE, will result in a member being removed from the health funds list. As health funds change their provider eligibility requirements at any given time,

upgrading qualifications may be necessary to be re-instated with some health funds.

Clinical Records

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

Receipting Information

- Medibank/AHM do not accept handwritten receipts (As of April 2021), they must be electronic.
- Sample receipt can be found on our website in the Health Fund tab
- Receipts must be numbered.
- Only one modality per day can be claimed by a client.

Treating Family, Partners and Business Partners of the Clinic

Health Funds do not permit the payment of benefits if the treated member is a partner, dependent, parent, sibling, or business partner of the servicing provider.

By definition, a provider can only perform one initial consultation with a member. Initial consultations attract a higher benefit than a subsequent consult. Only one 'initial consult' is allowed for any patient per condition.

Health Fund Clinic address requirements

It is **MANDATORY** that you provide the full clinic address with the street number, street name, suburb, state, and post code, phone number and email address. No PO Boxes acceptable. All updates are forwarded to the health funds by ATMS.

***Note Medibank have a limit of 3 clinic addresses for Remedial Massage practitioners and Bupa have a limit of 4 clinic addresses regardless of the modality.**

Sharing provider numbers is fraud and against the law

An Accredited member must never allow anyone to use their provider details, as this constitutes health fund fraud. Health fund fraud is a criminal offence which may involve a police investigation and expulsion from the ATMS Register of Members.

No health funds rebate on mobile services

Mobile Services are services at Hotels, Markets, Retreats or Corporate.

Home visits

Health Funds that do accept home visit services for rebates are: Aust Unity, CBHS, GU Health and NIB. Home Visit must be Stamped or pre-printed on the receipt.

Gift vouchers

Most Health Funds do not accept Gift Vouchers as the person receiving the treatment did not pay for the service. It is up to the Health Fund should they recognise it.

Being a provider implies acceptance of the terms and conditions for the health funds

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

Online or phone consultations are not recognised for health fund rebates

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



Acupuncture & Chinese Herbal Medicine overseas qualification (health funds do not accept any other modality completed overseas)

Health Funds do accept overseas Acupuncture and Chinese Herbal Medicine qualifications. The below documents are required:

- VETASSES letter stating the qualification is equivalent/comparable to the Australian BA Health Science TCM/Acupuncture
- IELTS Overall Band Level 7 in English Competency (Bupa only)

Specific requirements for individual health funds *Australian Health Management (AHM)*

Names and details of eligible ATMS members will be sent to AHM. Provider numbers will be populated in the ATMS member portal.

Hypnotherapy - HBF, RT Health, Nurses and Midwives

Names and details of eligible ATMS members will be sent for this modality each month.

Australian Unity

Names and details of eligible ATMS members will be sent to Australian Unity. ATMS members will need to contact Australian Unity initially on 1800 035 360 to register as a provider and to receive provider numbers.

BUPA

Names and details of eligible ATMS members will be sent to BUPA. Provider numbers will be populated in the ATMS member portal.

CBHS Health Fund Limited

Names and details of eligible ATMS members will be sent to CBHS. Use your ATMS member number as your provider number e.g ATMS23345.

For Acupuncture and Chinese Herbal Medicine services, please use your AHPRA number minus the 0's for e.g if your AHPRA

number is CMR0001731686 you would use CMR1731686 as your provider number.

Doctors Health Fund

Names and details of eligible ATMS members will be sent to Doctors Health Fund. Use your ATMS member number as your provider number for e.g., ATMS23345. Please note that Doctors Health Fund only covers Remedial Massage.

HCF

Names and details of eligible ATMS members will be sent to HCF. Use your ATMS member number as your provider number e.g., ATMS23345.

Medibank Private

Names and details of eligible ATMS members will be sent to Medibank Private. Provider numbers will be populated in the member portal as well as emailed directly to the practitioner as an attached letter. This letter is required for HICAPS Registration.

NIB including APIA, AAMI Health Insurance, Qantas Health Insurance & GU Health

Names and details of eligible ATMS members will be sent to NIB. Use your ATMS member number as your provider number e.g ATMS23345 except for GU Health. Members are required to contact GU Health directly on 1800 249 966 to register as a provider and to receive a provider number.

Australian Regional Health Group (ARHG) Refer to Health Funds Table for the individual funds listed under ARHG.

Details of eligible members are sent to ARHG.

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
U Nutrition
Y Myotherapy
R Remedial Massage
M Massage Therapy

For e.g., If your ATMS member number is 123 and accredited for Acupuncture, the ARHG provider number will be AT00123A.

- ▼ Special condition applies for Remedial Massage for the below funds under ARHG:
- Defence Health ▼
 - GMHBA ▼ (Including Frank Health Fund)
 - HBF (Including GMF Health) ▼
 - AIA Health ▼

ARHG -Chinese Massage

ARHG do not recognise Chinese Massage. They categorise it as Remedial Massage. For members that hold a Govt Accredited HLT Diploma of Chinese Remedial Massage HLT50102, HLT50107 or HLT50112 are required to use the 'R' status.

Most Funds recognise the 'R' status however there is a couple that prefer the M status, refer to the health funds table.

HICAPS

ATMS members who wish to activate these facilities need to register directly with HICAPS. HICAPS do not cover all health funds and modalities. Please go to www.hicaps.com.au or call 1800 805 780 for further information.





Health Fund	Acupuncture	Chinese Herbal Medicine	Counselling	Hypnotherapy	Myotherapy	Nutrition	Remedial Massage (Certificate IV)	Remedial Massage (HLT Diploma or higher level qualification)	Traditional Chinese Remedial Massage (HLT Diploma or higher level qualification)
Australian Health Management	✓	✓				✓			
Australian Regional Health Group									
ACA Health Benefits Fund	✓	✓			✓		✓	✓	•
Defence Health	✓				✓		✓	✓	•
GMHBA (Geelong Medical)	✓	✓			✓		✓	✓	•
Frank Health Fund & Health.com.au	✓	✓			✓		✓	✓	•
Health Care Insurance Limited	✓	✓			✓		✓	✓	•
HBF	✓	✓		✓	✓		✓	✓	•
Health Partners		✓			✓		✓	✓	
HIF (Health Insurance Fund of WA)	✓	✓			✓		✓	✓	•
Hunter Health (previously known as Cessnock DHB)	✓	✓			✓		✓	✓	•
Laird Health Services	✓	✓			✓		✓	✓	•
MDHF (Midura District Hospital Fund)	✓	✓			✓	✓	✓	✓	
MIA Health (previously known as MyOwn Health)	✓	✓			✓		✓	✓	
Navy Health Fund	✓	✓			✓		✓	✓	•
Nurses & Midwives Health	✓	✓		✓	✓		✓	✓	•
Onemedifund	✓	✓			✓		✓	✓	•
Peoplecare Health Insurance	✓	✓			✓		✓	✓	•
Phoenix Health Fund	✓	✓			✓	✓	✓	✓	•
Police Health Fund (including Emergency Services)	✓	✓			✓		✓	✓	•
Queensland Country Health	✓	✓			✓	✓	✓	✓	•
Reserve Bank Health Society	✓	✓			✓		✓	✓	•
RT Health				✓					
See-u by HBF (previously CUA)					✓				
St Lukes	✓	✓			✓		✓	✓	•
Teachers Health	✓	✓		✓	✓		✓	✓	•
Teachers Union Health	✓	✓			✓		✓	✓	•
Transport Health	✓	✓			✓		✓	✓	•
Westfund	✓	✓			✓	✓	✓	✓	•
Doctors Health Fund							✓	✓	
Australian Unity	✓	✓		✓	✓	✓	✓	✓	
BUPA	✓	✓					✓	✓	✓
CBHS Health Fund	✓	✓			✓		✓	✓	✓
HCF	✓	✓			✓		✓	✓	✓
Medibank Private	✓	✓	✓	✓	✓	✓	✓	✓	✓
NIB	✓	✓			✓	✓	✓	✓	✓

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 face to face consultations. For further rebate terms and conditions, patients should contact their health fund. Policies may change without prior notice.

- ARHG are only recognising Remedial Therapists who are accredited for this modality and were approved for ARHG Provider status under their old criteria.
- ARHG are recognising Chinese Massage, however the eligibility requirements and provider number is exactly the same as Remedial Massage. See ARHG Health Fund Information for further information.



Continuing Professional Education

Continuing Professional Education (CPE) is a structured program of further education for practitioners in their 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 to 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. CPE points can be gained by selecting any of the following articles, reading them carefully and critically reflecting on how the information in the article may influence your own practice and/or understanding of complementary medicine practice. You can gain one (1) CPE point per article to a maximum of three (3) CPE points per journal from this activity:

- **McEwen B. Exploring Vitamin B6: The versatile nutrient**
- **Brinkworth C, Baden D. Targeting chronic inflammation with nutrition and lifestyle interventions during a cost-of-living crisis**
- **Walker B. How to improve your flexibility and range of motion**

- **Myles M. Demystifying iodine: Insights for thyroid and hormonal health**
- **Medhurst R. An Update on Research in Homeopathy**
- **Pagura I. Negligence Law: An Overview**

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.



PRODUCTS & SERVICES

Bioglan Medilab



<https://bioglanmedlab.com.au/>

Trusted by Practitioners, Loved by Families.

At Bioglan Medlab, we're dedicated to enhancing patient outcomes and improving quality of life. Through cutting-edge innovation, progressive products, and a commitment to educating healthcare professionals, we lead the way in creating a healthier future. Visit the Bioglan Medlab website for more information.

BioMedica Nutraceuticals



info@biomedica.com.au | www.biomedica.com.au | 1300 884 702

BioMedica is an Australian owned company dedicated to the research, development and production of high quality, low excipient and efficacious practitioner formulations. Our products are developed by practitioners for practitioners. As a 'Strictly Practitioner Only' company, BioMedica is strongly dedicated to preserving and enhancing the role of the holistic practitioner.

Our products are only sold to practitioners in a clinical setting, this has been our long standing policy since our inception in 1998, and remains firmly in place to this day. We also aim to provide highly relevant technical education materials and seminars, with practical research and insights that can be immediately integrated into clinical practice.

Hair Tissue Mineral Analysis By InterClinical Laboratories



info@interclinical.com.au | <https://interclinical.com.au/htma-pa-thology> | 02 9693 2888

Proudly recognised as Australia's leader in HTMA for nearly 30 years, we set the standard in nutrient and heavy metal assessment. Our laboratory has specialized in testing human and animal hair for over 40 years, utilising advanced analytical technology, including the ICP Mass Spectrometer. The HTMA Report measures up to 38 minerals in parts per million with the highest level of accuracy and reproducibility in the industry. The analysis includes 27 key mineral ratios and comprehensive and informative recommendations based on expertise gained from testing over 1.8 million hair samples. Only 0.125 grams of hair (1 teaspoon) is required.

InterClinical practitioners are supported with valuable resources and educational materials, free mentoring, and a free practitioner advisory service. These services ensure that practitioners are equipped with the knowledge and skills required to achieve the best possible patient outcomes. InterClinical is an Australian-owned company that has been serving healthcare professionals since 1996.

InterClinical Professional



lab@interclinical.com.au | www.interclinical.com.au | 02 9693 2888

InterClinical Laboratories is one of Australia's leading practitioner-aligned nutritional medicine and health screening companies. Our vegan-friendly practitioner-only range of nutritional supplements, InterClinical Professional, supports practitioners to better treat and manage patient health. Our acclaimed, evidenced-based nutritional, herbal and natural medicines are developed by a team of local and international researchers, skilled experts, and practitioners. All formulations are evidence-based, synergistic, highly bioavailable and have minimal excipients and allergens. Offering personalised health programs is convenient through layered therapy, optimal dosing, and elemental minerals. We are committed to providing practitioners with the highest quality Australian-made nutritional supplements. InterClinical has been serving Australian health care professionals since 1996 and is proudly Australian-Made and Australian-Owned.

Nuchev



www.biopractica.com.au | info@biopractica.com.au | 1300 551 077

The new home of the trusted practitioner-only brands that you know and love – including BioPractica, Basica, Magnesium Diasporal, Heel and Medicine Tree.

Unlock Your Patient's True Wellbeing Potential with Our Exclusive Practitioner-Only Brands!

- ✓ **BioPractica** – Naturopathic formulations that are grounded in tradition, inspired by science. www.biopractica.com.au
- ✓ **Magnesium Diasporal & Basica** – German-made mineral formulations with over 100 years of use
- ✓ **Heel Medicines** – Highly researched, scientifically validated homeopathic products
- ✓ **Medicine Tree** – Homeopathic preparations designed to empower health through Mind-Body Medicine

Nutriscript



<https://nutriscript.co.nz> | info@nutriscript.co.nz | AU: 1800-177-959

Nutriscript has been a trusted partner for healthcare practitioners in Australia and New Zealand since 2006. Our platform simplifies patient scripting, offering access to 80+ practitioner-only brands and thousands of products across both countries. We provide expert technical support, including guidance on protocol design, product selection, and business strategy. Practitioners can also access hundreds of hours of free education.

- Seamless service across Australia & New Zealand.
- 80+ practitioner brands and quality retail ranges.
- Script in seconds, same-day dispatch (order before 4pm on a weekday).
- Free technical support and business advice.
- Often described as the fastest, most reliable supplier by practitioners.

The Pharmaceutical Plant Company



sales@ppcherbs.com.au | www.ppcherbs.com.au | 03 9762 3777

Where nature, science and health come together. PPC offers healthcare professionals a choice of either traditionally made herbal extracts from dried plant materials; or fresh plant tinctures that are all grown in Tasmania and processed within hours of harvest. PPC uses Organically certified herb where possible, with the entire Fresh Plant Tincture range being Australian Certified Organic. The Pharmaceutical Plant Company has 25 years experience in manufacturing and distributing traditional herbal extracts, fresh plant tinctures and listed medicines in Australia.



Biz Club

Grow your business naturally

Join the **ATMS Biz Club** anytime to kickstart your path to networking, growth, and success

The ATMS Biz Club is more than just a course—it's your roadmap to success. With fortnightly webinars designed to guide you through every aspect of building and scaling your practice, this program offers the perfect blend of expert insights and practical application. We're all about real-world strategies you can implement immediately to see results!

Each quarter zooms in on a key area of business development. Whether it's practice building, marketing success, client growth, or operational excellence, we've got you covered with webinars featuring expert teachings that combine both theoretical knowledge and actionable advice.

Key Features:

- **Program Duration:** Quarterly or annually, join anytime and access recordings
- **Webinars: Thursday 12-1 PM** Fortnightly
- **Session Length:** 1 hour
- **Expert Guests:** Each session will feature a guest Natural Medicine Practitioner or Business Owner who's been there, done that, and is eager to share their experience and insights.
- **+ Earn 4 CPE points per quarter**



REGISTER NOW!

This advertisement is available only to
ATMS Accredited Members in accordance with the
Therapeutic Goods Advertising Code.