



Nutriti^on I-Mag

WWW.NUTRITIONIMAG.COM

RESEARCH AND EDUCATION FOR TOMORROW'S PRACTITIONER

JANUARY/FEBRUARY 2022

MENOPAUSE MANAGEMENT PLAN

**An in-depth guide to nutrition
and the menopause**



Design a detox

The protocols for clients
seeking an effective
cleanse plan

The lowdown on lyme

The latest
recommendations
from experts


MINAMI[®]
OMEGA-3 FISH OIL

The power of three *for flexible movement.*



✓ Pure EPA+DHA

✓ Clinically tested Meriva Curcumin

✓ Powerful antioxidant Vitamin C

This highly bioavailable formulation supports healthy heart, collagen formation, healthy cartilage and flexible movement.




PURE OMEGA-3 WITH
HIGH BIOAVAILABILITY



HIGH OMEGA-3
CONCENTRATION



THIRD-PARTY
TESTED

 @minami_health

Available now at The Natural Dispensary
www.naturaldispensary.co.uk

GLUTEN &
LACTOSE FREE

In partnership with:



Welcome



In so many ways, the pandemic has changed how we do things, whether it's how we do business, consult, or learn.

In all of these aspects, for many months, doing things virtually was forced upon us as restrictions continued. And while the return of in-person events has been welcomed, a new way of working – one that blends physical events with virtual – seems to be the new way forward. Whether it is meeting

with clients or brands, or in your training and education, it seems this blended way of working is achieving the best of both worlds.

And that is the approach being taken by the organisers of the IHCAN Conference series, which also publishes this magazine. It was so welcome to bring our first in-person event back earlier this year since

the pandemic began, and this has perfectly complemented the new virtual events we have run in the last 18 months.

And as we bring the 2021 series to a close, we are excited at the prospect of more blended learning for next year. We have a full programme of events – a mixture of in-person and virtual – confirmed, with the first one taking place in March. Keep an eye out at www.ihcanconferences.co.uk to find out more about the events, and how to book your place. Remember, the events are a great way not only to top up your all-important CPD points, but also to network with fellow practitioners, leaders in the field, and brands.

And finally, don't forget that reading this magazine also offers you the chance to add further CPD points. Simply read the magazine, and then follow the instructions on the nutritionimag.com home page.

All that remains to be said is we thank all our readers and advertisers for their support this year, we hope it has been a positive year of learning and education for you, and we look forward to bringing you more in 2022.

RACHEL SYMONDS, EDITOR

Rachel

NUTRITION I-MAG, Target Publishing Limited, The Old Dairy, Hudsons Farm, Fieldgate Lane, Ugley Green, Bishops Stortford CM22 6HJ

t: 01279 816300 e: info@targetpublishing.com www.nutritionimag.com

Meet The Team

EDITOR Rachel Symonds **CONTRIBUTORS** Lindsay Powers, Hania Opienski, Maya Qureshi
SALES & PUBLISHING DIRECTOR Ruth Gilmour e: ruth.gilmour@targetpublishing.com **KEY ACCOUNTS DIRECTOR** Abigail Morris e: abigail.morris@targetpublishing.com
SALES MANAGER Maria Francis e: maria.francis@targetpublishing.com **DESIGN/PRODUCTION**
 Annabelle Duggan e: annabelle.duggan@targetpublishing.com
MARKETING DIRECTOR James Rix e: james.rix@targetpublishing.com
ACCOUNTS Lorraine Evans e: accounts@targetpublishing.com
MANAGING DIRECTOR David Cann e: info@targetpublishing.com

The *Nutrition I-Mag* is published by Target Publishing Limited, the leading publisher and conference organiser serving the natural, complementary health markets, as well as the leisure, education, sport and eco markets.
www.targetpublishing.com
 ISSN 2049-4017

Some material may be speculative and/or not in agreement with current medical practice. Information in *Nutrition I-mag* is provided for professional education and debate and is not intended to be used by non-medically qualified readers as a substitute for, or basis of, medical treatment. Copyright of articles remains with individual authors. All rights reserved. No article may be reproduced in any form, printed or electronically, without written consent of the author and publisher. Copying for use in education or marketing requires permission of the author and publisher and is prohibited without that permission. Articles may not be scanned for use on personal or commercial websites or CD-ROMs. Published by Target Publishing Limited. The Publishers cannot accept any responsibility for the advertisements in this publication.

CONTENTS



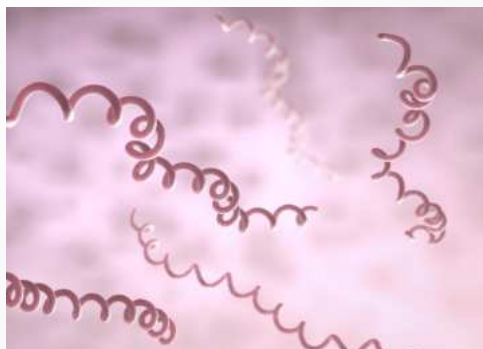
HEALTHY CLEANSE

As the new year arrives, what are the best options when it comes to advising on detoxification?



MENOPAUSE

The experts offer their advice on the best nutritional strategies to manage the menopause



LYME DISEASE

The correct protocols for dealing with this increasingly common modern disease



INGREDIENT FOCUS

The importance of calcium, and the best approach to recommending a quality supplement



RECIPES

With Veganuary upon us, we bring you some creative plant-based recipes



EDUCATION

The latest news from the final IHCAN Conference of 2021

NEWS

The developments in the world of nutrition

RESEARCH

We bring you up to date with the latest scientific developments

PRODUCT WATCH

What's new to market

ASK THE EXPERTS

Nutritional experts answer your questions

COMPANY PROFILE

Pure Encapsulations – what's next for this leading, research-backed practitioner brand?

NUTRITION I-MAG GIVEAWAYS

OUR CONTRIBUTORS

Each issue, *Nutrition I-Mag* enjoys contributions from many leading authorities in the nutrition world.
This issue, our writers include:



Dr Carsten Nicolaus

Dr Carsten Nicolaus is a world renowned Lyme expert, having dedicated his career to the research, diagnosis and treatment of lyme and other tick-borne diseases. He founded Infectolab Americas (USA) with the aim of developing high quality tests and rigorous testing procedures to raise the bar in diagnostic testing for viruses and bacteria (including lyme and other tick-borne diseases). He has been an active member The International Lyme & Associated Diseases Society since 2007 and has trained over 1,300 doctors.



Ella Owen

Ella Owen works as a Nutrition Advisor for the natural health and nutrition distributor, Kinetic, which has brands in its portfolio including Nature's Answer and Garden of Life.



Lindsay Powers

Lindsay Powers is a Nutritional Therapist and works as Health Coach Manager at the supplement brand, Good Health Naturally.



Lucy Peel

Lucy Peel has an MSc in Nutritional Therapy and BSc in Naturopathy and works as a National Practitioner Consultant (UK) for BioMedica Nutraceuticals.



Hania Opienski

Hania Opienski, BA Hons, BSc, LicAc, BHSc, MBACc, is a Naturopathic Nutritionist, Traditional Chinese Medicine acupuncturist and Life Alignment Healing Practitioner. She applies a holistic approach to health using a synergy of natural Eastern, Western, and Energy medicine to facilitate the highest expression of wellbeing and balance for her clients. She is the Education Lead and a Mycotherapy Specialist Consultant for Hifas da Terra UK and Ireland.



Dr Marilyn Glenville

Dr Marilyn Glenville PhD is one of the UK's leading Nutritionists. She is the author of a number of internationally bestselling books, including *Natural Solutions For Dementia and Alzheimer's*.

News Bites

A round-up of the news from the natural health industry.

CALL FOR ACTION AMID DATA SHOWING LIVER DEATHS RISE 10 PER CENT

A charity has issued a call to action after it was revealed there has been a 10 per cent rise in liver disease deaths in a year.

The British Liver Trust is demanding that the Government takes urgent action to improve early detection of liver disease as data reveals that premature deaths from liver disease in England increased by almost 10 per cent in a single year; Public Health England figures show liver disease deaths in England rose from 9,218 in 2019 to 10,127 in 2020.

The charity pointed out that three quarters of people with cirrhosis are currently diagnosed when it is too late for effective intervention or treatment. Recently published research in the *British Journal of General Practice* shows that the majority of the Government's new regional bodies responsible for commissioning (called Integrated Care Systems) do not have adequate pathways in place for the early detection of liver disease and that many GPs do not have access to adequate tests to diagnose people early. This is in sharp contrast to other chronic conditions, such as diabetes and heart disease.

Dr Helen Jarvis, Clinical Advisor for the British Liver Trust, commented: "As a GP myself, I know that primary care professionals are under huge pressure at the

moment. We therefore need to put in systems that make it easy for primary care to effectively find people with liver disease so that they can be proactively managed and referred on to secondary care if necessary. Unfortunately, many GPs report that they do not feel confident or have the knowledge to support patients. As a result, people with liver disease are diagnosed far too late when treatment options are limited. This has led to thousands of avoidable deaths."

Pamela Healy OBE, Chief Executive of the British Liver Trust, added: "Liver disease is a public health crisis which is expected to overtake heart disease as the biggest cause of premature death in the UK in the next few years. Many of these deaths and the overall increase in liver disease also disproportionately impact disadvantaged communities. If the Government is serious in addressing these inequalities, they need to target deprived areas, and ensure that there are effective liver disease pathways across the country.

"We need the Government to act now to implement the changes we're calling for. There are areas of excellent care but at the moment there is a postcode lottery – implementing pathways for early detection across the UK will save many lives."





Hike in global demand for plant-based since start of pandemic

New research has revealed that global consumer demand for plant-based products has increased since the onset of the Covid-19 pandemic.

Palsgaard commissioned extensive consumer research into the plant-based market, focusing specifically on three categories: milk alternatives, dairy-free yoghurts and frozen desserts, with the research showing nearly half of consumers (44 per cent) had purchased more of such products since the start of the Covid-19 pandemic. Twelve per cent said their purchases of plant-based products had decreased, and 44 per cent said they had stayed the same.

The number one reason respondents chose plant-based products was that they considered them better for health, an opinion held by 75.4 per cent. The second biggest driver, chosen by 51.3 per cent, was 'I like the taste', while 45.8 per cent said they bought into the plant-based category because they are concerned about the environment and sustainability.

The survey also found that it is primarily younger consumers who have changed their purchasing behaviour. Since the start of the pandemic, almost half (47.4 per cent) of those aged 18-24 (and 48.4 per cent of those aged 25-34) had increased the number of plant-based products they were buying, compared with just 34.8 per cent of those aged 55-64.

Haydee Carlos, Palsgaard's Application Manager, commented: "The onset of Covid-19 appears to have triggered more interest in the market for plant-based food and beverages. This may be because the pandemic has led to a greater focus on health generally, and on the environment. At the same time, the plant-based sector is rapidly evolving, so there are more and more new products out there for consumers to explore."

Festive focus for latest campaign

The people behind the consumer facing HealthyDoesIt initiative have launched what they say is its most generous campaign yet.

HealthyDoesIt has unveiled its fifth topical campaign, HealthyDoesFestive, which aims to encourage consumers to take positive steps towards a happy and healthy Christmas and New Year. In addition, by entering the giveaway on offer, consumers can opt in to be added to the HealthyDoesIt mailing list. Consumers are invited to enter the giveaway by following the link, <https://healthydoesit.org/healthydoes-festive/>

The giveaway features products from HFMA member brands, and additional products that can be found in health stores. The giveaway is an opportunity for brands to have their product centre stage of an exciting and engaged consumer campaign.

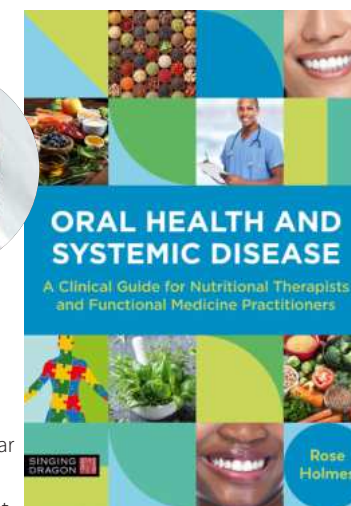
Esther Mills-Roberts, Communications Manager at the HFMA, explained: "HealthyDoesFestive pulls together learnings from previous campaigns, making the most of a festive giveaway to increase our consumer reach and engage with our HealthyDoesIt experts, who have provided content. This is, of course, one of the busiest times of the year for health store retail, and we are proud to support the industry with this campaign, to increase awareness of natural products amongst consumers, and point them towards health stores."

ORAL HEALTH FOCUS FOR NEW NUTRITION BOOK

A well-known nutrition expert has announced publication of her new book focused on oral health.

Rose Holmes, a Registered Nutritionist and the Education and Training Manager at Rio Health, has penned *Oral Health and Systemic Disease – A Clinical Guide for Nutritional Therapists and Functional Medicine Practitioners*.

The book examines the connection between mouth and dental health and systemic conditions in personalised nutrition, covering specific conditions, such as ulcers, halitosis and tooth grinding. Discussing associations with systemic diseases, including cardiovascular disease, diabetes and adverse pregnancy outcomes, the book offers scientifically evidenced protocol possibilities and a balanced viewpoint.



In Research

Nutrition I-Mag rounds up the latest research studies in the nutrition world.

.....

New paper argues for vitamin K2 for heart health

Vitamin K2 has been described as a 'neglected player' in a new U.S review into heart health.

Researchers at Maastricht University and the Cleveland Clinic have collaborated to present the argument for K2 with regards to the heart.

The journal, *Open Heart*, has published the review paper from NattoPharma's long-time research partner, Maastricht University, and the Cleveland Clinic touting vitamin K2's overlooked role in cardiovascular health, specifically identifying in the United States where K deficiency is significant.

The paper, *Vitamin K2, a Neglected Player in Cardiovascular Health: A Narrative Review*, presents a thoughtful organisation of data, which is desperately needed in the effort to petition for a K2-specific Recommended Daily Intake, according to Professor Leon Schurgers, Professor of Biochemistry of Vascular Calcification and Vice-Chair of Biochemistry at the Cardiovascular Research Institute Maastricht (CARIM), Maastricht University, and author to the paper.

The review aims to summarise the literature for scientists and clinicians. Divided into two major sections, the role of MGP in cardiovascular health, and the cardiovascular benefits of vitamin K2 dietary intake and supplementation, the authors first discuss the

pathophysiological interplay between K2 and Matrix Gla Protein (MGP).

In the review, the authors conclude: "Vitamin K2 supplementation appears safe and practical, and randomized clinical trials can investigate its use...With evidence mounting, the definitive role of vitamin K2 supplementation in delaying progression of vascular and valvular calcifications remains the subject of multiple clinical trials. Nonetheless, vitamin K2 and MGP utility in various patient populations... grows commensurate with the data supporting its efficacy in improving cardiac function and decelerating arterial stiffness."

Professor Schurgers commented: "There is expanding preclinical and clinical data on vitamin K's cardiovascular benefits, with multiple ongoing clinical trials. To that end, there is a pressing need to organise our understanding of the pathophysiology, and efficacy of K2 intake as it relates to markers and outcomes of cardiovascular health."

"As we point out, there is an alarmingly high prevalence of vitamin K deficiency and suboptimal recommended intake among the general population in the United States. And yet there is a growing body of evidence that supports the potential role of vitamin K2 in cardiovascular health."





Covid-19 linked to mental illness and fatigue, study finds

People who have tested positive for Covid-19 had an increased risk of mental illness, fatigue and sleep problems.

That is according to the results of a new study, which analysed the electronic primary care health care records of 226,521 people from across the UK between February 2020 and December 2020.

The study found there was an almost six-fold increase in the likelihood of reporting fatigue to a GP following a positive PCR test and a threefold increase in the risk of sleep problems compared to those without a positive test, for people who haven't previously visited their GP for any of these reasons in the past.

There was also an 83 per cent increase in mental illness following a positive PCR test. However, there was also a 71 per cent increase in the risk of mental illness for people who received a negative PCR test compared to the general population. Researchers believe this throws some doubt about whether Covid-19 is directly causing mental illness, because it is clear that those who get a test are more likely to have risk factors for mental illness, for example, pandemic-related anxieties.

Dr Matthias Pierce, Researcher at The University of Manchester, who led the work, explained: "When we began this research project, we wanted to investigate whether we could find any evidence in primary health care records that Covid-19 was linked

to an increased risk of mental health illness, sleep and fatigue problems.

"While fatigue is clearly a consequence of Covid-19, the risk of experiencing sleep problems is also very high. However, we are sceptical regarding the extent that Covid-19 is directly causing people to become mentally ill, or whether those with a predisposition to mental illness are more likely to get tested."

Professor Roger Webb, from The University of Manchester, who co-leads the Mental Health research programme at the NIHR GM PSTRC, added: "Our findings align with those generated by investigations conducted in other countries in revealing elevated risks of mental illness, self-harm, fatigue, and disrupted sleep patterns among people testing positive for infection during the pandemic. Establishing the mechanisms that have caused these outcomes to occur is the next major challenge for researchers in our field."

The research, published in *The Journal of the American Medical Association Network Open (JAMA Network Open)*, was funded by the National Institute for Health Research Greater Manchester Patient Safety Translational Research Centre (NIHR GM PSTRC). The centre is a partnership between The University of Manchester and The Northern Care Alliance NHS Foundation Trust.

Magnesium and its role against diabetes

Researchers believe that oral magnesium supplementation plays a role in glucose metabolism for those at risk of diabetes.

The study, published in the *Nutrients* journal, reported that there is a large and growing body of literature focusing on the use of oral magnesium (Mg) supplementation for improving glucose metabolism in people with or at risk of diabetes. They, therefore, aimed to investigate the effect of oral Mg supplementation on glucose and insulin-sensitivity parameters in participants with diabetes or at high risk of diabetes, compared with a placebo.

Several databases were searched investigating the effect of oral Mg supplementation compared to placebo in patients with diabetes or conditions at high risk of diabetes. Data were reported as standardised mean differences (SMDs) with their 95 per cent confidence intervals (CIs) using follow-up data of glucose and insulin-sensitivity parameters.

The results showed that when compared with placebo, Mg supplementation reduced fasting plasma glucose in people with diabetes. In people at high risk of diabetes, Mg supplementation significantly improved plasma glucose per se, and after a two hour oral glucose tolerance test. Furthermore, Mg supplementation demonstrated an improvement in insulin sensitivity markers.

The researchers wrote: "In conclusion, Mg supplementation appears to have a beneficial role and improves glucose parameters in people with diabetes. Moreover, our work indicates that Mg supplementation may improve insulin-sensitivity parameters in those at high risk of diabetes."



Vitamin D study suggests low levels do not aggravate Covid-19 risk

A new study in the *Nutrition Journal* has concluded that low vitamin D levels do not aggravate Covid-19 risk or death.

The study, a meta-analysis and GRADE assessment of cohort studies and RCTs, also suggested that vitamin D supplementation does not improve outcomes in hospitalised patients with Covid-19. This is despite ongoing research examining the importance of vitamin D when it comes to respiratory illness, including Covid-19.

The researchers explained that the associations between vitamin D and Covid-19 infection and clinical outcomes are controversial, and they say the efficacy of vitamin D supplementation in Covid-19 is also not clear.

The team identified relevant cohort studies that assessed the relationship between vitamin D, Covid-19 infection and associated death and randomised controlled trials (RCTs) that reported vitamin D supplementation on the outcomes in patients with Covid-19 by searching the PubMed, EMBASE, and medRxiv databases up to June 5, 2021.

A total of 11 cohort studies with 536,105 patients and two RCTs were identified. vitamin D deficiency (<20 ng/ml) or insufficiency (<30 ng/ml) was not associated with a significant increased risk of Covid-19 infection or in-hospital death. Each 10ng/ml increase in serum vitamin D was not associated with a significant decreased risk of Covid-19 infection. The study also reported that the overall quality of evidence (GRADE) for Covid-19 infection and associated death was very low. Vitamin D supplements did not significantly decrease death or ICU admission in patients with Covid-19. The level of evidence as qualified using GRADE was low.

"Current evidence suggested that Vitamin D deficiency or insufficiency was not significantly linked to susceptibility to Covid-19 infection or its associated death," the researchers concluded. "Vitamin D supplements did not significantly improve clinical outcomes in patients with Covid-19. The overall GRADE evidence quality was low, we suggest that vitamin D supplementation was not recommended for patients with Covid-19."





New to market

Nutrition I-Mag brings you the latest product developments in the nutrition world.

MEN'S HEALTH NPD FROM VIRIDIAN

Viridian Nutrition has announced the launch of two new men's health products,

The ethical vitamin company has created Essential Man Formula, a complete multivitamin and mineral supplement with selected phytonutrients for men aged 18-65, and Man 50+ Prostate Complex, which harnesses natural botanicals to support normal prostate function.



The new launches are in line with a survey revealing that nearly as many men (47 per cent) as women (53 per cent) are taking supplements on a daily basis.

Essential Man Formula contains a unique blend of high quality bioavailable nutrients and botanical extracts to help maintain energy and vitality. Vitamin B5 contributes to the reduction of tiredness and fatigue, as well as normal mental performance, selenium contributes to normal spermatogenesis and immune function, while it also contains maca extract at a therapeutic dose.

Man 50+ Prostate Complex contains a select range of plant extracts, including a researched pollen extract standardised to beta-sitosterols alongside nettle leaf, pumpkin seed, saw palmetto berry, and *Pygeum africanum*. This formulation has been developed with human clinical data to support the use in men from age 50 onwards. Pumpkin seed extract and nettle extract help with the maintenance of good bladder function and urinary flow and support normal function of the prostate.

COMPOSTABLE CREATIONS AT G&G

G&G Vitamins has announced it is phasing in compostable tubs and labels for its product range.

Over the coming months, the company will be phasing out the plastic tubs in favour of a more environmentally friendly option on its G&G brand. It will also phase in new labels which, together with the new tub, will biodegrade within six months.

The 100 per cent biodegradable material features a base material for the tubs made from starch and sugar cane fermentation.

G&G says during the manufacturing, the carbon footprint of the tubs is around 75 per cent lower than that of conventional plastic bottles and 90 per cent of glass bottles' carbon footprint.

In addition, after the tubs have been used, the optimal treatment is composting. In this case, 90 per cent of the packaging will biodegrade within six months or less.



Cytoplan innovates with collagen

Marine Collagen is the latest addition to the supplement range at Cytoplan.

Created with a unique and bioactive collagen peptide formulation, it is made with Peptan type 1 wild caught, sustainable marine collagen peptides from whitefish to deliver an odourless collagen supplement.



Collagen is one of the major building blocks of our skin, bones, muscles, ligaments and tendons, and is the most abundant protein in the body, containing 19 amino acids. Type 1 marine collagen can be used as a supportive formula to aid the structure, elasticity, texture, strength and resilience of the skin and to support the overall health of all connective tissue in the body.

Both odourless and tasteless, Marine Collagen is delivered as a powder and can be added to water, juice or used to create a collagen-rich skin boosting smoothie.

Sustainable, containing no artificial colours, sugars, dairy, wheat, gluten or soy, Marine Collagen is also non-GMO and certified by the Marine Stewardship Council.

Instant D-Mannose powder developed

SC Nutra has unveiled its latest innovation in the form of Waterfall D-Mannose Instant.

The natural health supplement manufacturer has launched the convenient 'instant' granulated form of its popular Waterfall D-Mannose supplement, with a donation to Bladder Health UK for every pack sold across the full range.

D-Mannose is a natural supplement supporting all-round bladder health for men and women, commonly used to ease symptoms of cystitis, urinary tract infections, prostatitis and other bladder conditions.

The Waterfall D-Mannose Instant Sachets have been developed in response to demand for a quick, on-the-go option for users of Waterfall D-Mannose Powder. Supplied in a pre-measured 3g size, in packs of 12, they contain 99 per cent less plastic than the tubs.

SC Nutra will be donating 5p from each sale, across the full range of Waterfall D-Mannose products, to Bladder Health UK, a national, patient-based information and support charity dedicated to helping people with all forms of chronic bladder illness.



THE 2021 CONFERENCES END WITH A BANG

We bring you the latest news from the most recent in the IHCAN Conferences series.

Last month saw the final IHCAN Conference of the 2021 series take place, with more than 600 tickets sold for another inspiring virtual event.

Practitioners from across the world came together online one last time in 2021 to enjoy three headline speakers and a smaller breakout session, plus a virtual expo and plenty of time to chat online.

First up was Mark Marsland, who shared his inspiring story that formed the basis of his first book, *Dying to be Happy – Embracing Death, Finding Life*, which has gone on to help many people worldwide overcome anxiety and depression.

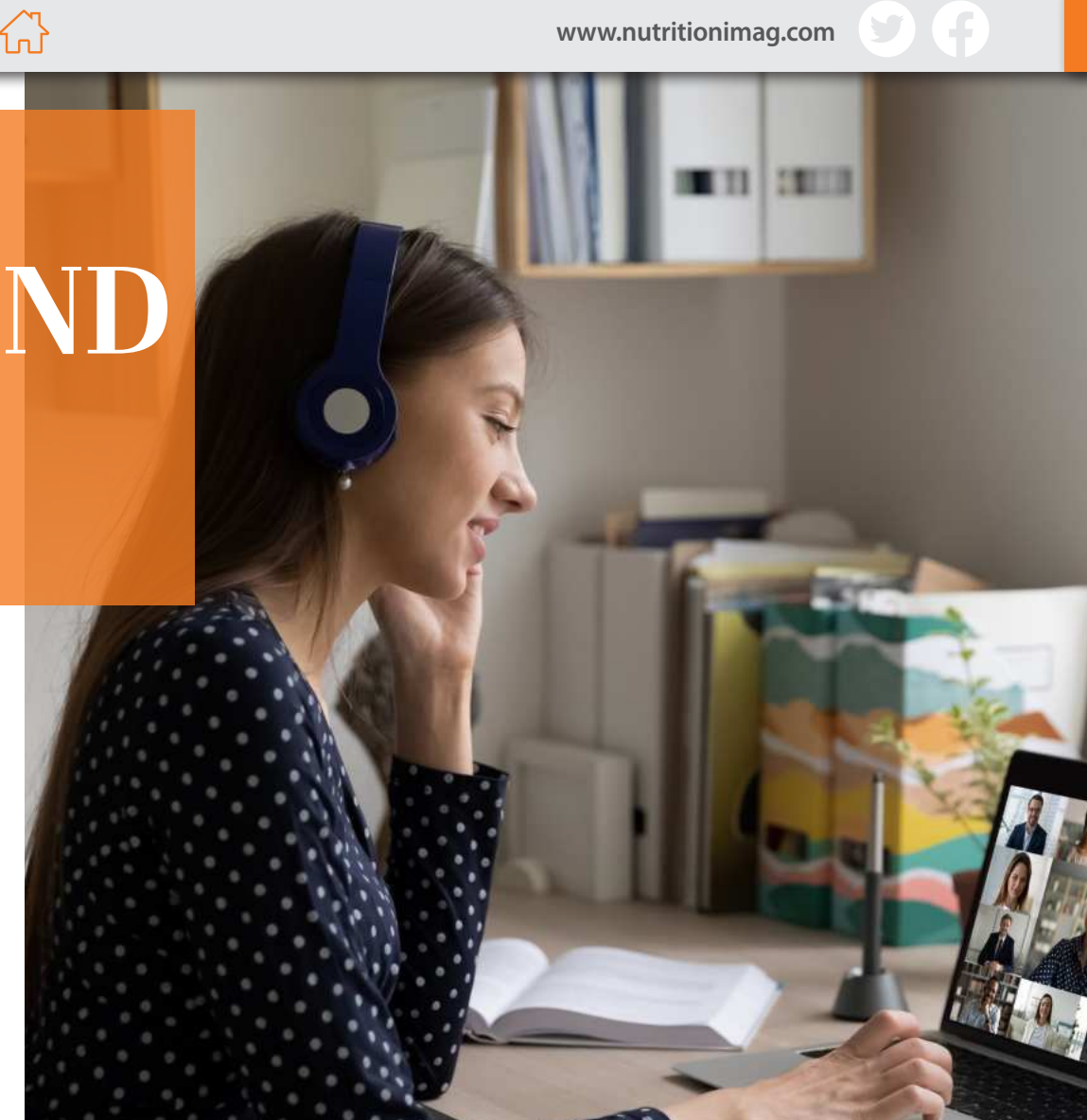
Mark shared his system, which he calls 'Glowing and Growing', which has helped hundreds of people crush emotional parasites and take back control of their lives again.

Just some of the comments in the chat included, "Wow, that was such an amazing talk. It really touched my heart. Thank you so much – you're a truly beautiful soul", "Your talk spoke to me more than I could ever have believed..."

considering myself a positivist. Thank you", "Wonderful! Both tears and smiles. Thank you so much", and "Thanks Mark for sharing your techniques, your positivity and your story! I need to reconnect with nature and people more".

Next to the virtual stage was Dr Samuel Yanuck, who returned after his starring role in the first ever virtual IHCAN Conference in September last year. This time, he tackled brain fog and fatigue – two of the most common symptoms in functional medicine practice. He discussed the immunological underpinnings of these problems and showed practical steps to address them effectively.

Another favourite returned next, with Dr Cheryl Burdette taking to the stage for two hours with her talk, 'Phytonutrients and the management of thyroid health – understanding the oxidative concern'. Learning objectives included understanding how metabolic endotoxins from the gut interact with thyroid and cause dysregulation with production of thyroid hormone and receptor function and understanding thyroid from a naturopathic approach.



TOP OF THE CLASS

We're proud to continue to support practitioners with education – and a huge thank you for all the feedback following the event:

- "Thank you IHCAN team again for this wonderful event, it was, as usual, very informative."
- "Fantastic day, thanks to the IHCAN team and all the speakers. Very enriching day."
- "Amazing day, Thank you!"
- "This has been brilliant - thank you so much."

DON'T MISS OUT

Couldn't make it? Don't worry as the presentation and video downloads from every session are available to buy on our website. Simply visit ihcanconferences.co.uk/virtualevent. The IHCAN Conferences, both in-person and virtual, return in 2022 so look out for more information shortly.



EXCLUSIVE TO *NUTRITION I-MAG* READERS

Watch part one of Dr Cheryl Burdette's two part headline slot at November's virtual IH CAN Conference, 'Phytonutrients and the Management of Thyroid Health; Understanding the Oxidative Concern'. To buy the downloads from the whole event, simply visit <https://www.ihtcanconferences.co.uk/virtualevent>



NaturesPlus BioAdvanced

A unique range of products created for individual needs, using carefully selected herbal and nutritional blends.

For nearly 50 years, NaturesPlus has been at the forefront of creating innovative, nutritional supplements that deliver the quality and results consumers are looking for. NaturesPlus is pleased to announce six exciting new products, formulated specifically for the UK and Irish markets, that reflect current nutritional trends and requirements. Each BioAdvanced product is based on clinical research and contains a blend of today's most sought-after herbs and nutrients that nutritionists recommend and consumers demand.



BIOADVANCED LIVER SUPPORT is an advanced formula that includes essential nutrients scientifically researched to support liver health*. Designed to support cellular energy production, it contains targeted nutrients to help defend cells against oxidative stress. The formula includes choline, vitamins B and C, selenium and amino acids, glutathione, methionine, NAC and alpha lipoic acid cofactors. In addition to these outstanding nutrients, BioAdvanced Liver Support features holistic herbs, including turmeric, milk thistle, dandelion, artichoke and burdock.

BIOADVANCED HAIR, SKIN & NAILS is a comprehensive supplement for men and women to support, repair and supercharge growth. Containing essential vitamins, minerals and nutrients, including 2000mcg biotin, MSM, zinc, selenium, pine bark extract, vitamin A, silica and hyaluronic acid to help prevent and treat hair loss, brittle, flaky nails and improve skin conditions from the inside out*. Contains vitamin C to help support production of collagen, a key skin protein, and targeted nutrients to help defend cells against oxidative stress.



BIOADVANCED STRESS SUPPORT is an advanced formula to support normal psychological and nervous system function whilst reducing oxidative stress*. Vitamin B12, niacin, B6 and magnesium contribute towards normal energy metabolism and blood cell formation. Incorporating vital nutrients with proven efficacy such as holy basil, lemon balm, CoQ10, ashwaganda, rhodiola, choline and ginseng.



BIOADVANCED MENOPAUSE SUPPORT is formulated to help regulate hormones during all stages of the menopause*. Featuring resveratrol, magnesium BioMag blend, vitamin D3 and bioavailable calcium from the extensively researched algaecal, which contributes to the maintenance of normal bones. Also includes sage, red clover, ashwaganda, dong quai, maca, damiana, sea buckthorn berry omega 7, and flaxseed lignans.

BIOADVANCED MONTHLY SUPPORT FOR WOMEN is a hormonal health and fertility support supplement for women during all stages of their monthly cycle. Specially formulated for menstruating women to support hormonal health, fertility, energy and vitality*. A unique complex of bioavailable vitamins, minerals, whole foods and herbs that has been created to support women in menstruation. This unique formula contains DIM, B6, and zinc for hormonal regulation and fertility, as well as key nutrients, magnesium, vitamin D3, broccoli sprouts, bladderwrack and flax.



ORDER DIRECT FROM NATURESPUS TODAY

Open a practitioner account today and receive NaturesPlus products at a discount of up to 50 per cent. You will also benefit from online training, product samples, literature and customer support. Contact NaturesPlus today on 0800 9173084 or email uksales@naturesplus.com

BIOADVANCED VITAL MAN has been designed to maximise strength, vigour, fertility and energy whilst maintaining healthy testosterone levels and muscle function*. Enabling men to perform at their best, whether they are a professional athlete, a gym enthusiast, at work or at play. Testosterone is responsible for sperm production and erectile function, growth of muscle mass and strength, red blood cell production in bone marrow and bone density. With added vitamin D3, which contributes to the maintenance of normal muscle function, and astaxanthin to give an athletic edge. Combining a powerful and effective botanical blend, including nettle, lycopene, pine bark extract, pomegranate, saw palmetto, pumpkin seed and maca, along with selenium and zinc, to support fertility, performance and endurance.

■ All of the products in the BioAdvanced range are vegan, gluten, soya, dairy and yeast free. *Please see the website for further details.



NaturesPlus.

bioadvanced

RESTORING BALANCE



CYTOPLAN
NATURE MEETS SCIENCE

Prebiotics are the non-digestible food ingredients that probiotics can feed off to help them thrive. They are used within the gut to increase populations of beneficial bacteria.

PreBio RESTORE is a new and unique prebiotic supplement providing a blend of mixed prebiotic fibre which contribute to a diverse microbiome, whilst supporting healthy bowel habits.

www.cytoplan.co.uk

Follow us @cytoplan   

nutri
ADVANCED

The Number 1 choice for UK Practitioners

Scientifically balanced

We use rigorous scientific and clinical research to ensure our supplements are developed with the perfect blend of ingredients at the optimum level of efficacy.

Finest quality ingredients

We select the highest quality, purest and most efficacious ingredients to go into all our products.

365 day satisfaction guarantee

All of our products are backed with a full year guarantee. If you or your clients are not completely satisfied with the quality of a Nutri Advanced product, simply return it to us within 365 days of purchase for a full refund.

Optimum absorption

For optimum absorption, we use preferred forms of vitamins and minerals to engineer products at the ideal strength and in the right concentrations.

Advancing nutritional education

We share our wealth of knowledge from the forefront of nutritional research through the Nutri Advanced online resource hub and host a variety of seminars and lectures with leaders in the industry.

Active body-ready formula

Wherever possible, our products contain ingredients in their best form for your body to use, whether it's the most bioavailable or most active.

Register with
Nutri Advanced
and receive
50% OFF
your first order*

*T&Cs apply



Reasons why students and practitioners choose Nutri Advanced:

- Contact with our team of fully qualified nutritionists to assist with product guidance, nutrition advice and client queries
- CPD accredited webinars to help you learn how to support specific conditions from the comfort of your home or office
- Access to restricted professional educational literature including technical papers, reviews and protocols
- CPD accredited seminars with world class speakers such as Dr. Jeffrey Bland and archived material featuring Dr. Joseph Pizzorno, Jo Gamble and Dr. Kristi Hughes
- Exclusive trade prices

Register online at:
nutriadvanced.co.uk or **freephone 0800 212 742**

Consider the correct cleanse

A cleanse is an effective way to support health and wellbeing, but caution is needed to avoid faddy approaches, as our panel of experts advise.

Tis the season to detox as we head into a new year, but with the increased desire for people to cleanse their systems after the festive indulgence, we see a huge rise in brands selling products claiming to be quick fixes to shape up.

As Nutritional Therapists, you will clearly know that no quick fix exists, with a focus needed on good nutrition and healthy lifestyle. But many people can be led by these faddy messages we see at this time of year, and so recommending a carefully thought out, gentle and sensible cleanse plan is imperative.

But what does such a plan look like? And what can the benefits of such a

cleanse be?

Dr Marilyn Glenville PhD is one of the UK's leading nutritionists and author of a number of internationally bestselling books, including *Natural Alternatives to Sugar*. She commented: "The argument is that our bodies are quite capable of detoxifying themselves, but our diet and environment are not the same as a generation ago when there was less pollution, more locally grown food, no convenience or fast foods and no additives, preservatives or colourings in our food. So, our bodies have to work harder all the time with this overload, so it is good to give it a cleanse."

Sara Gibbons, Health Coach at Good



Health Naturally, agreed, adding: "In our modern living environment, it is impossible to avoid at least some toxins. Whilst a healthy body can handle a certain amount, when it gets overloaded, there can be problems with both physical and mental health. Stress is also a common factor in modern day living and is responsible for many problems because it both depletes the body of nutrients, as well as making it more vulnerable to toxicity. Taking time out of the normal routine to cleanse and nourish is therefore going to be beneficial for many people.

"In Traditional Chinese Medicine, good times to cleanse are often considered to be the spring, in order to clear debris after the winter months, and autumn, to prepare the body ready for the rigours and heavier foods of winter. However, you can begin your cleansing journey at any time it's felt to be needed. It's important to emphasise if you have not done a detox programme before, it is best to begin gradually and seek professional advice if you have any health concerns."

Ella Owen, Nutrition Advisor at Kinetic, which has brands in its portfolio including Nature's Answer and Garden of Life, continued: "A detox or cleanse could be sabotaged if your system is in a state of chronic stress, in other words in 'fight or flight' mode. Natural detoxification is impaired when the parasympathetic nervous system is down-regulated due to heightened stress. The success of any cleanse or detox relies on the paths of elimination working at their optimum. For many these areas – namely the lymphatic system, liver and bowels – can be a bit sluggish or out of balance.

"Diet, traditional herbs, nutritional supplements and naturopathic techniques can support these roots of elimination, allowing for a more successful and comfortable cleanse. If we are to detoxify at a cellular level, the body needs to be able to effectively move these toxins out of the body via the lymphatics, bloodstream, liver, intestines, kidneys and skin."



SHOULD WE CLEANSE?

The answer to this, according to the experts, is yes, but in a considered way.

Hania Opienski, Education Lead and Mycotherapy Specialist Consultant at Hifas da Terra UK and Ireland, advised: "Our bodies have been designed to be detoxified and maintain homeostasis on a daily basis. However, natural healing traditions such as Traditional Chinese Medicine and naturopathy both include an element of cleansing and supporting these natural detoxification processes. An annual cleanse is often encouraged, with the change of seasons, particularly after the winter and the transition from late summer into the colder months often being times when a cleanse or detox is recommended.

"From a naturopathic perspective, the body is designed to heal itself, given the right conditions. In modern western cultures, how we eat has moved away from natural foodstuffs and seasonal eating, with refined, processed and chemical laden food, often shipped in from somewhere else in the world, consumed on a daily basis by many people. All of this keeps our organs of detoxification busy, especially for city dwellers, who are also dealing with pollution, heavy metals and all sorts of other environmental toxins."

And what signs might a client be exhibiting if they are in need of a cleanse?

"Signs that your body is in need of a cleanse can include feeling tired all the time, getting one infection after another because of low immunity, mood swings, irritability, poor skin, food cravings, digestive symptoms such as bloating, flatulence and constipation, puffy eyes," Dr Glenville reported.

Owen went on: "An individual may benefit from a cleanse if they are experiencing skin issues such as spots and zits, which could indicate their body is eliminating toxins via the skin as a result of other routes of elimination being overburdened. Joint aches and pains, headaches, low energy, fatigue, and lowered immune function may all be symptoms related to toxicity. Circulating toxins can also interfere on a mental and emotional level, affecting focus and ability to concentrate, general mood and anxiety levels. Those experiencing constipation and symptoms of irritable bowel syndrome may benefit from a bowel and liver cleanse."

BENEFITS TO GAIN

These are many, in both mind and body.

"All health begins at the cellular level as cells are the building blocks of the body. We have around 75 trillion cells, and inside them trillions of activities take place in nanoseconds, all working together in an astonishing process of signalling and coordination for your optimal health. In essence, there are only two reasons why the cells of the body cannot fully perform this incredible magic. The first is due to a shortage of the nutritional raw materials the cells need. The other is due to some form of toxicity, where the damaging elements interfere with cells' ability to function at full effectiveness," Gibbons advised.

"Granting your body an internal rest and allowing it to recuperate and recharge the batteries is a beautiful gift to give yourself. When toxins and debris are cleared from the system, the results can include brighter skin, more energy, greater mental clarity and even weight loss. It can even also help the body to heal itself."

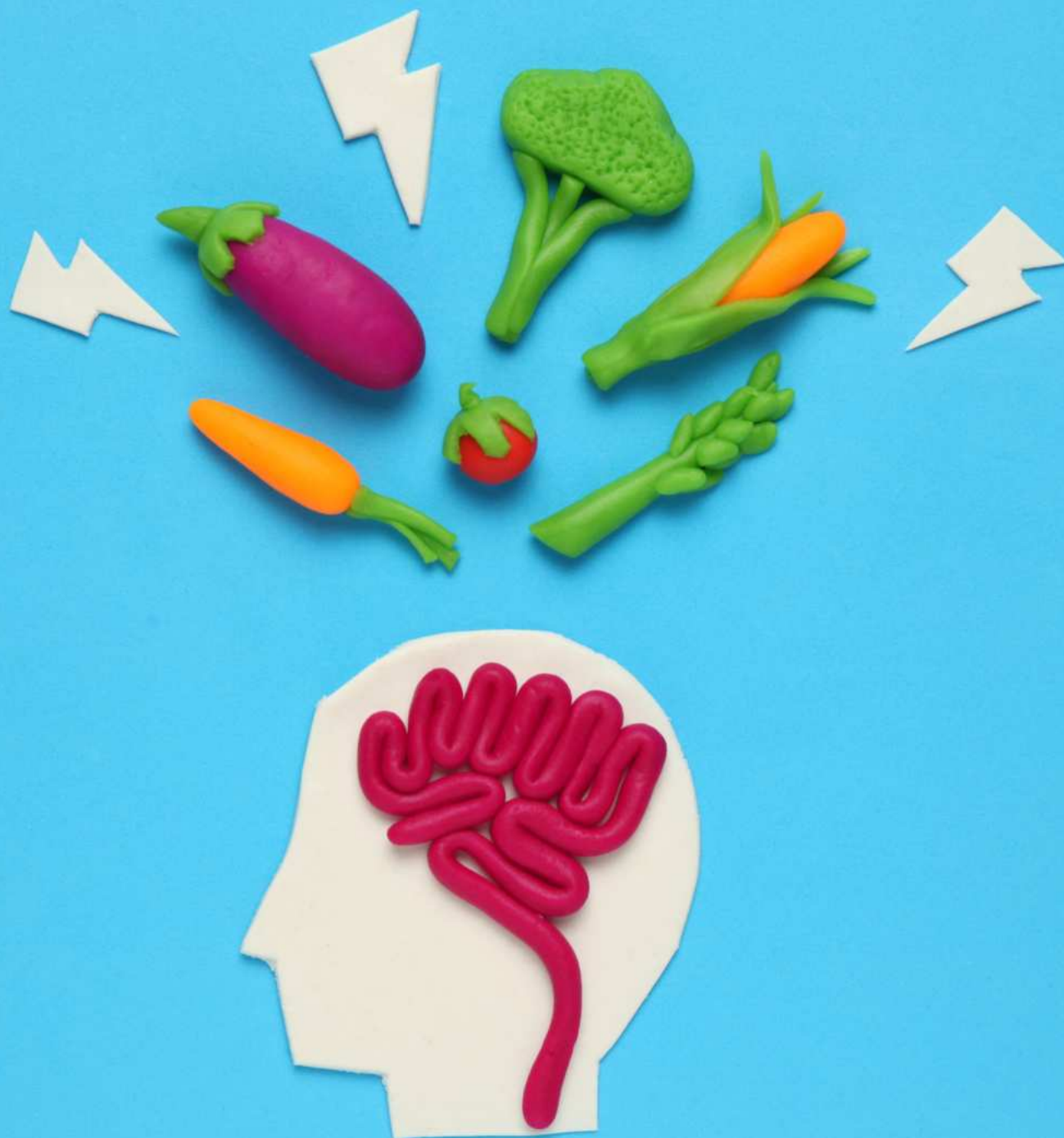
Opienski added: "The benefits from a cleanse can be far reaching and will vary from person to person depending on the state of health and toxicity prior to detoxification. Benefits can include more energy, feeling lighter, clearer skin, eyes and breath, and a reduction in symptoms of inflammation or irritation. Often digestive symptoms can improve, such as bloating, cravings, indigestion, pain, reflux or irregular bowel movements. Some experience weight loss or a reduction in fluid retention or reduced PMS. There can also be mental/emotional benefits, such as clearer thinking and mental processing, reduction of brain fog or headaches, more balanced or positive mood, and even improved sleep."

Dr Glenville continued: "There can be both physical and psychological benefits. Physical ones can include more energy, clearer, brighter skin, less puffy/dark eyes, less bloating and water retention, improved digestive function and weight loss. Psychological benefits can include clearer mind and balanced mood and a 'platform' to get you eating well for life."

It's also worth making clients aware of potential side effects as they begin a cleanse.

"If you cleanse too rapidly so that it overwhelms your routes of elimination, especially your liver detoxification pathways and bowel, detox symptoms can occur, which include digestive discomfort, headaches, body aches or pains, skin rashes or outbreaks, fatigue and low mood. This is sometimes called a healing crisis or 'Herxheimer reaction'. This is a sign that your paths of elimination, usually the liver and bowel in this case, need to be supported or the cleanse needs to be gentler," Owen advised.

Gibbons added: "Sometimes people feel tired, headachy or emotional as the body clears old habits and patterns at the same time as physical toxins. Others can feel benefits straightaway. To counter any side effects, drink plenty of water and consider a natural supplement to keep the digestive system moving well. Some gentle exercise stimulates the lymph system, helping to move the toxins out faster and walking in nature can also be beneficial."



A SENSIBLE APPROACH

There is much to consider in terms of what a client's cleanse plan should look like, and it will of course differ depending on their goals and health status. But there are some standard factors to consider.

"The primary thing that you can do to support your body and natural detoxification processes is to pare your diet back down to the basics; simple, minimally processed, fresh foods and maintain a good level of hydration. A naturopathic cleanse or detox does not require hardcore fasting or juicing for beneficial effects. You can still eat three meals and even have some snacks if needed to regulate your blood sugar, just eat lightly and optimally within a 10-12 hour eating window (also called time-restricted eating), and ideally with your first meal before 8am," Opienski advised.

"Allowing your body at least 12-14 hours to rest and digest overnight and omitting late night eating in themselves will give your digestive organs and particularly your liver a well needed break."

Gibbons continued: "When you give your body pure nutrition, the additional resources available enable a cleansing and clearing effect to occur, so both toxicity and deficiency can be addressed simultaneously. This is why undertaking a diet comprising a wide range of fresh, ideally organic, vegetables and fruit juices and smoothies can be so effective. Flooding the body with nutrients in this way enables the cells to move out debris and toxic matter.

"When doing any cleanse programme, it is always important to drink plenty of pure water throughout the day to help flush any released toxins out of the system as quickly as possible. It is also important to ensure the bowels move fully every day as toxicity in the colon can mean feeling overwhelmed, headachy and nauseous. Some people resort to colonics or enemas to counter this and the relief felt can be immediate! Finally, taking time to rest allows the body to fully use the extra resources to do what it needs to do to move towards more optimal health. Therefore, a deep cleanse is ideally best not undertaken at a very busy period in life unless the need is a critical one."

Looking at the dietary specifics, Dr Glenville suggested: "Rather than following an extreme detox plan that limits just about every food except fruit and vegetables, it is better to have a more sensible approach that you follow for a week and still allows you to work and function well in your daily life. I would suggest eliminating wheat, dairy, sugar, caffeine, alcohol, processed foods and artificial sweeteners.

"Juice detoxing may not be the best way to do a cleanse. Juicing removes the fibre from the fruits and vegetables that help to make us

feel full and satisfied. Also, any weight you lose will be lost as water and be temporary because as soon as you go back to eating normally, all the weight will go back on again. A short juice detox may give you more energy and kick start you into a healthy eating pattern, which is a good thing, but you shouldn't do a juice detox if you have any problems with blood sugar balance, for example, if you find it hard to go long periods without food or are a diabetic because the sugar load from the juices will be too much."

She went on: "Your body is two-thirds water and it provides the means for nutrients to travel to organs and also for toxins to be removed so it is crucial for cleansing. Water is lost through urination, respiration and sweating and symptoms of mild dehydration include joint pain, irritability, headache, tension, swollen ankles and a bloated stomach. Aim for at least one and a half litres (six to eight glasses) of water a day. It does not have to be plain water as herbal teas count towards the daily intake. If you are eating a lot of fruit and vegetables, you will not need so much extra water as these can contain up to 90 per cent water.

"Lemon is a natural cleanser and aids your liver function which is the 'waste disposal unit' of your body and an important organ for detoxification. It can not only improve liver function but with its cleansing properties, it can help to give you healthier looking skin. Lemon also helps to improve your digestion so food does not sit in your digestive tract, where it can ferment and cause flatulence and bloating.

"By improving digestion, this helps to remove toxins out of your body more efficiently. As soon as you get up, drink one glass of warm or room temperature water, mixed with the juice of one lemon. It would also be good to take a probiotic at the same time to improve the cleansing properties of the lemon."

Owen added: "In January and the winter months, many people gain from cleaning up their diet and eating habits, particularly if they have overindulged somewhat over the festive season. To begin with, this would usually involve removing 'anti-nutrients' from the diet, namely refined sugars, artificial ingredients, fast foods, alcohol,

pasty and refined flour products. Simplifying the diet at this time of year can have a beneficial effect by enabling the body to detoxify naturally.

"In the cold, contracted winter months, it is important not to eat too much cold or raw food, which could otherwise weaken your vital energy and defences. The winter is the best time for easy-to-digest soups and stews that are warming and nourishing."

Opienski continued: "From a Chinese medicine perspective, the ideal cooking methods would be slow cooking, steaming, braising, stir frying or baking. If it's a spring or summer cleanse, you can include raw foods and salads. In the colder months, it's preferable to eat warm and cooked foods as these are easier to digest.

"Focus on vegetables choosing as many different colours as possible, making sure to include the pungent allium family (onions, garlic, leeks, etc) and ginger. Have a small amount of high quality protein from soaked pulses, or traditionally prepared soy (miso, tofu, tempeh), mushrooms, or wild fish or organic or grass fed meat can be included.

"Get your carbs from a small amount of starchy vegetables, soaked pulses and a little rice. Eating a high vegetable and pulse diet will naturally contain a lot of fibre, also essential for optimal detoxification via the bowel. Include a small amount of healthy fats such as olive oil, avocados, coconut (or MCT) oil, or nuts and seeds."



DETOX SUPPORT

Clients may need additional support to aid the detox process, which should run hand in hand with dietary changes. So, supplement wise, what could you recommend?

Dr Glenville pointed out that a key consideration to clients must be around supporting the liver.

"Your liver is your major waste disposal unit of your body, not only for toxins, waste products, drugs and alcohol, but also for hormones so it is crucial that it is working efficiently. It also performs other important functions that have a bearing on your health. Among its many tasks are the storage and filtration of blood, the secretion of bile and numerous metabolic functions, including the conversion of sugars into glycogen, which is the form in which carbohydrates are stored in your body. It plays a vital part in metabolising fat (breaking it down properly) and it helps to use fat to produce energy," she explained.

"The liver can become overloaded by a number of factors, including sugary and processed foods, alcohol and stress. Alcohol is classed as a hepatotoxin, meaning that it is toxic to the liver. As the liver cannot store alcohol, it has to break it down (metabolise it) in order to get rid of it. So, while it can manage small amounts of alcohol, say, one unit an hour, if more is drunk than that in an hour, it simply cannot break it down fast enough. As the liver metabolises alcohol, it stores fat in the liver which, over time, can lead to fatty liver disease.

"Herbs that help with liver detoxification include milk thistle, artichoke and dandelion. All the B vitamins are important, and they are needed by your liver for efficient detoxification. Choline and inositol are important for healthy liver detoxification and help to support liver function. Other nutrients such as zinc, magnesium and vitamin C are helpful. Glutathione supports liver detoxification across the two detoxification phases and so do the amino acids, theanine, taurine, arginine, N-acetyl cysteine and carnitine.

"Probiotics are important for your general health, but they also improve detoxification. One of their major benefits, especially for women, is that they help to control an enzyme which causes 'old' hormones, specifically oestrogen, to be re-circulated instead of being eliminated. This is crucial for women with oestrogen dependent conditions, such as endometriosis, fibroids and breast cancer."

And Owen went on: "Dandelion root is a bitter herb that is traditionally used to support the liver and gall bladder. It may be helpful for those with a sluggish liver and can be used as part of

a liver cleanse. Fibre is fundamental to a successful detox and foods that support this area include milled seeds and chai seeds, as well as prebiotic foods such as acacia fibre. A microbiome formula containing a diverse blend of beneficial bacteria with *Lactobacilli* and *Bifidobacteria* strains can help the gut environment and support conditions for a successful cleanse.

"Bowel cleansing herbs include black walnut hull extract, which has a long history of traditional use, especially in the case of a parasites cleanse. Oil of oregano leaf extract contains powerful active botanical compounds, including carvacrol, which has been shown to exhibit anti-fungal and anti-bacterial properties. This may be useful for those wanting to incorporate a candida cleanse into their detox program.

"Triphala is one of the most important herbal preparations in Ayurvedic tradition. Triphala is traditionally used for gentle cleansing and detoxification, for promoting regularity, and for optimal digestive health."

Gibbons went on: "The cleansing process can imbalance the gut microbiome and its healthy bacteria at the same time as removing the unhealthy bacteria, so plenty of good quality probiotics are important, alongside vitamin D3 to help bring it back into balance. Magnesium chloride flake baths or footbaths help release and pull out more toxins, and many people find them to be a soothing and nurturing part of cleansing. Furthermore, absorbing plenty of magnesium into the cells has also been shown to protect them from toxicity.

"Bentonite clay baths or footbaths are also an excellent way of pulling out harmful substances such as heavy metals and other environmental pollutants. Supplementing with a good glutathione product is also useful as this master antioxidant is a significant resource for the liver in its functions as a critical detox organ. It can also be helpful to further support the liver with milk thistle tincture. Psyllium husks are a good choice if the bowels become sluggish during the cleanse process."

Opienski also highlighted the benefits of medicinal mushrooms at this time of year as more people cleanse.

"Medicinal mushrooms may be nature's best kept secret for detoxification and cleansing," she advised. "Medicinal mushrooms not only reduce inflammation, but also regulate the immune system, can improve mitochondrial function, contain high levels of antioxidants and can improve metabolic balance and lymphatic drainage. Mushrooms are also a good source of vitamins and minerals, including potassium, magnesium, calcium, iron, zinc, vitamins B12, B1, C, D and E, as well as other mushroom specific compounds, such as beta (1-3, 1-6) D-glucans, and specific terpenes, sterols and ergothioneine. They are rich in essential amino acids, including leucine, valine and glutamine, and high in prebiotic fibre, which feeds



beneficial bacteria.

"Though all medicinal mushrooms will have an immune modulating effect and help to modulate inflammation, there are certain species that are most indicated for supporting detoxification processes. These include maitake, AbM, polyporus, cordyceps, reishi and shiitake. Each of these have demonstrated the capacity to either chelate heavy metals, increase antioxidant enzymes, neutralise free radicals, increase diuresis, protect the liver, reduce inflammation levels, improve lymphatic draining, or inhibit lipid peroxidation. Because mushrooms are adaptogens, this means they work in harmony with the individual and their use rarely comes with nasty detox reactions."

She went on: "Maitake extract can increase clearance of heavy metals such as mercury *in vivo* and *in vitro* by up to 56 per cent. It has the highest chelating activity compared with other fungi (Zhang W, et al. 2018). It demonstrates antioxidant activity inhibiting free radicals, superoxides, hydroxyls, and lipid peroxidation, and chelates ferric ions. It has also

demonstrated its ability to increase the levels of antioxidant enzymes, such as glutathione (GSH), catalase (CAT), and superoxide dismutase (SOD) in the liver and brain, which enhances its free radical neutralising effect (Dai XW et al., 2015; Chen GT et al., 2012; Yeh JY et al., 2011; Chen Z et al., 2017).

"The *Agaricus blazei* mushroom (AbM) has antioxidants effects by neutralising hydroxyl radicals, chelating ferric ions and increasing antioxidant enzymes such as glutathione peroxidase (GSH-Px), catalase (CAT), and superoxide dismutase (SOD). It can also protect the liver from damage induced by toxins such as carbon tetrachloride or cadmium, reducing their harmful effects, increasing antioxidant enzyme levels and normalising transaminases, which supports its ability to detoxify and restore the liver (Živković L et al., 2017; Lv A et al., 2018; Ker YB et al., 2005; Chang JB et al., 2011; Zhang C et al., 2012; Al-Dbass AM et al., 2012). Several studies have shown that polyporus has a potassium-sparing diuretic effect, mainly by increasing the excretion of sodium and chlorine ions (Zhang G et al., 2010; Zhao YY et al., 2009). It also has antioxidant activity against DPPH,

hydroxyl and superoxide radicals (He PF et al., 2016). It also has a tropism for the lymphatic system and can reduce fluid retention, cellulite, and puffiness.

"Cordyceps extract has an antioxidant capacity against hydrogen peroxide, can neutralise other free radicals; hydroxyl, superoxide and DPPH, and it has also been found to have iron reducing and chelating capacity (Peng Y, et al., 2014 ; Ko WS et al., 2010; Li SP et al., 2003; Wang Y et al., 2009; Gu YX et al., 2007; Sharma SK et al., 2016). Reishi is highly anti-inflammatory and antioxidant. It can increase antioxidant enzymes in various tissues such as the myocardium and gastric tissues, as well as decrease lipid peroxidation and neutralise hydroxyl and superoxide free radicals (Sudheesh NP et al., 2010; Chen WQ et al., 2005; Cherian E et al., 2009; Xue H et al., 2010; Pan K et al., 2013).

"Shiitake extract has antioxidant capacity by elevating the enzymes SOD, CAT, GSH-P and by inhibiting lipid peroxidation. It can also increase the elimination of cadmium ions from the intestines (Qiao X et al., 2014; Chen H et al., 2012; Ren Z et al., 2018)."




MINAMI[®]
 THE OMEGA-3 EXPERTS

Superior Omega-3 with immune support*



Delicious orange
 & berry flavour
 liquid



Sustainably
 sourced



For children
 aged 1-11



Vit D3 for
 immune
 support*

Available at naturaldispensary.co.uk & minamihealth.co.uk


 MUSHROOM BIOSCIENCE

DETOX YOUR BODY AND BALANCE YOUR GUT *for the new year*



**BIO-INTESTIN PROMOTE THE GROWTH
 OF HEALTHY GUT BACTERIA AND RESTORE
 YOUR DIGESTIVE BALANCE**

**MICO-POLYPOR, EXCELLENT DETOX & DIURETIC
 IDEAL FOR WEIGHT MANAGEMENT**

*Natural prebiotics
 FOR YOUR FRIENDLY BACTERIA
 Vitamins C & D*



*suitable for
 CELIACS, LACTOSE INTOLERANCE,
 VEGETARIANS AND VEGANS.*



www.hifasdaterra.co.uk

Nutrition and the menopause

At such a pivotal time for a woman, a focus on nutrition and lifestyle in the lead-up to the menopause can make a huge difference to her health status. And here, the experts discuss the correct approach.

We know that poor diet, a more sedentary lifestyle, and stress can contribute to a woman experiencing greater menopausal symptoms. And so it stands to reason that in the Western world, where all these factors can be prevalent, menopause symptoms can be more widespread than in other parts of the world, and can go on for much longer.

In fact, as Helen Ford, Head of Nutrition at the Natural Health Practice, said the fact there are such widespread differences across the world in how women fare has been a matter of debate.

"The menopause is a natural part of ageing that usually occurs between 45-55 years of age, as a woman's oestrogen levels decline. In the UK, the average age for a woman to reach the menopause is 51. One of the questions that most perplexes scientists is why and how the menopause is experienced so differently around the world," she commented.

"There are other cultures where women experience minimal and often no menopausal symptoms. Interestingly, women who eat a more plant-based diet, including naturally occurring phytoestrogens, suffer with fewer symptoms. In Asia, countries where women largely eat tofu, miso and legumes suffer less than a typical western woman. Of course, there are other reasons for this but it's certainly an influencing factor."

Catherine Gorman, Nutritional Therapist and Health Coach at Good Health Naturally, continued: "It certainly seems very common for women in the Western world to experience a variety of symptoms during the menopause, including hot flashes and anxiety. Research by the Nuffield Health Group found more than 70 per cent of women experience symptoms resulting in behaviour changes, with one in four women suffering severe debilitating symptoms. +

"The menopause is definitely being talked



about a lot more these days, with celebrities like Davina McCall making television programmes exploring the experiences of women as they transition. Even Rod Stewart is calling for menopause classes for men, so they can understand what their wives and partners are going through. But it is also worth remembering the menopause does seem to be experienced differently around the world. In some cultures, like Japan, women seem to have minimal and sometimes even no symptoms at all. Most research suggests diet is the main reason for this. In particular, the high consumption of soybeans in Japanese diets; these beans contain phytoestrogens and isoflavones, which can help lessen hormonal imbalance.

“Lifestyle may also play a part too; Japanese women are considered some of the healthiest in the world. Traditionally slimmer and fitter, they tend to eat a nourishing diet rich in omega-rich fish, light carbs, with plenty of green vegetables. Genetics may also play a part too.”

THE MODERN EFFECT

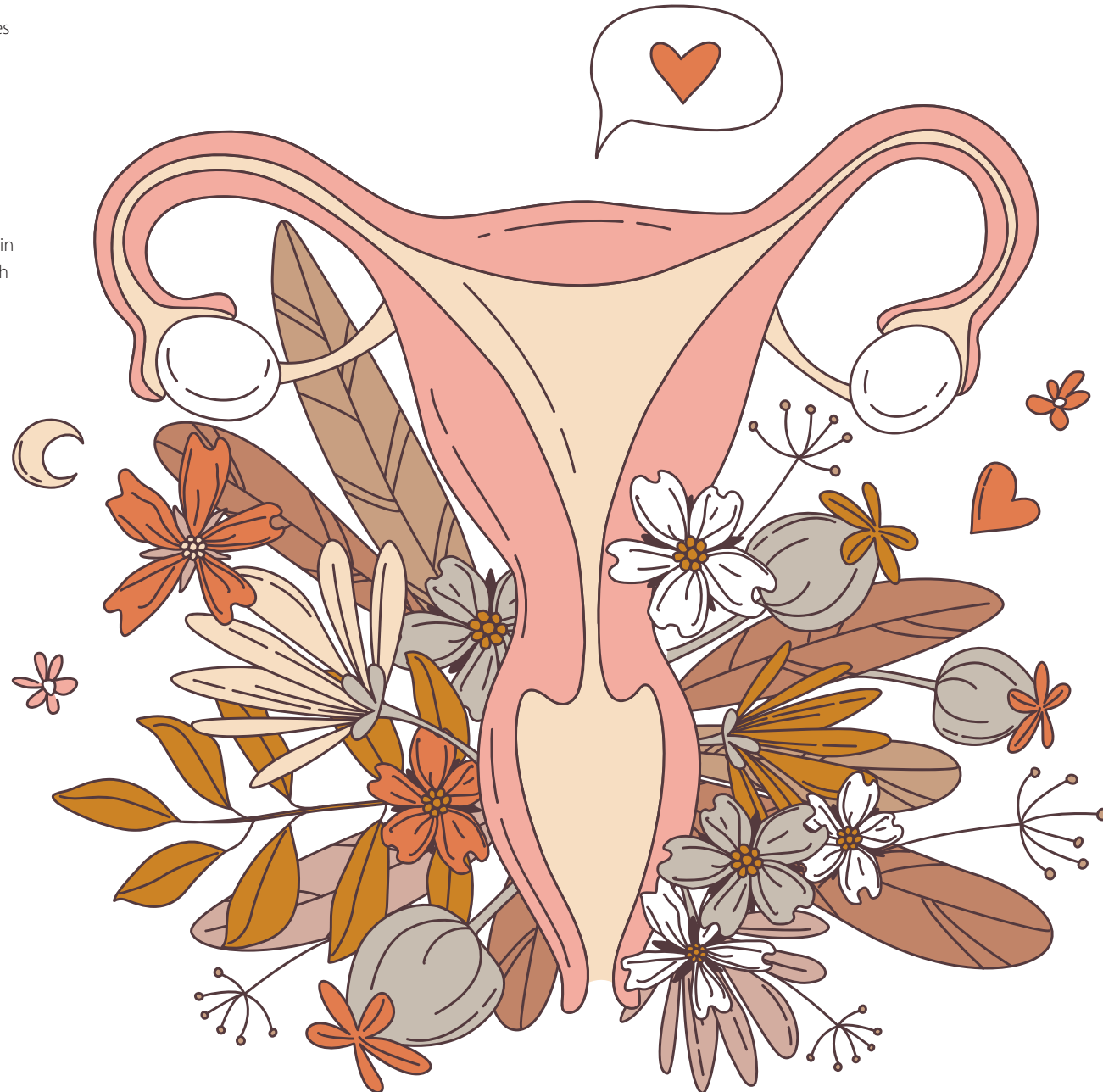
Modern living has seen our diets change, our nutrient levels sometimes depleted, not to mention often living in a state of stress. So, what effect does this have on a woman's menopause experience?

“We see stressed menopausal women coming into the clinic who have led busy lives, whether it be high powered careers or full-time mums who have simply ‘burnt’ themselves out. This, coupled with poor diet (we often see women who have yo-yo dieted for years/drank too much caffeine and alcohol and eaten a sugary diet) can really exacerbate symptoms. We know that stress promotes the production of adrenaline, which can compromise our female hormones, thus creating imbalance around this crucial time,” Ford explained.

And Gorman went on: “Modern life is busy. Many women are struggling with work/life balance. Technology means they can end up tethered to computers and phones and constantly connected to social media. Many women are simply

not getting enough sleep or time to relax or exercise, and rely on caffeine, sugary snacks and convenience foods to get through the day. All these stressors of modern life can have a significant impact on hormonal balance, which will exacerbate menopausal symptoms.”

She continued: “Multiple studies show overweight women with a higher BMI, or a greater percentage of body fat, reported more frequent hot flashes and night sweats, with more severe symptoms compared to women with lower BMIs or per cent body fat. The 2012 The American Women's Health Initiative Dietary Modification (DM) trial followed more than 17,000 menopausal women aged 50-79, as they introduced dietary changes, reducing fat intake and increasing fruit, vegetable, and whole grains. It concluded weight loss could help to eliminate vasomotor symptoms among postmenopausal women. Seventyfour per cent of women in the study reported no hot flashes, 73 per cent reported no night sweats.”



CLIENT ASSESSMENT

There are some obvious signs a woman is peri-menopausal – that is, approaching the menopause – when symptoms can start. But it's also important to understand the process, and what causes a woman a specific set of symptoms.

"During your 40s, you are most likely to experience the symptoms of peri-menopause, which is the pre-menopausal phase. This occurs when your ovaries have reduced egg supply and they gradually cease to produce the female hormone oestrogen, which is largely what causes the unwanted symptoms. Peri-menopause can occur as early as five to 10 years before the actual menopause, which is most likely to occur in your early 50s," Ford advised.

Lucy Peel, MSc Nutritional Therapy, BSc Naturopathy, a National Practitioner Consultant (UK) at BioMedica Nutraceuticals, went on: "During the peri-menopause and into the menopause, the body is switching gear from producing hormones from the ovaries over to the adrenal glands. During this time in life, there are often many

changes happening at the same time for many women, which can be overwhelming. The children are often at the stage of being ready to leave home, parents may need more care, and they may be moving house from the home they have brought their families up in. It tends to be a stage in a woman's career where she is under a lot of stress, and I often find this really exacerbates symptoms such as hot flushes."

And in terms of the range of symptoms that can be experienced?

"A survey of 1,000 women found hot flushes was the most common symptom experienced by 73 per cent. With 63 per cent regularly feeling tired or drowsy, 48 per cent suffering low mood, and 43 per cent noticing memory problems," Gorman advised.

"Other common symptoms include changes in menstruation: periods can become shorter or longer, lighter or heavier, with more or less time in between. Some women experience mood swings, palpitations, declining libido, vaginal dryness, sleep disturbances, lack of energy, joint pains, dry eyes, weight gain, headaches and changes

in hair quality. These symptoms can begin when women are in their mid-40s, months or even years before menstruation actually stops, a time known as peri-menopause. They last on average for four years after the final period. However, one in 10 women experience them for up to 12 years."

Ford went on: "These vary from woman to woman. Some women sail through the menopause without any symptoms and the only thing they notice is that their periods have stopped. Symptoms of the menopause can include hot flushes, night sweats, vaginal dryness, mood swings, declining libido, osteoporosis, ageing skin, lack of energy, joint pains, weight gain, headaches and changes in hair quality. With regards to how long the symptoms last, it is impossible to answer because every woman is different! These symptoms are also part of the Western ageing process for both men and women, so it's important not to blame every symptom that you experience on the menopause."





NUTRITIONAL THERAPY PROTOCOL

This is an area of health that responds hugely well to good nutrition and supplementation.

"Making sure that you are eating well starts during the peri-menopausal years because it is not only going to help you with this transition, but it will also give you a really good foundation for your long-term health. Phytoestrogens are hormone-like substances that act like a weaker version of oestrogen and can help balance fluctuating hormones. They are present in foods like soya, legumes and flaxseeds.

"Eating to balance blood sugar is important for hormone balance. This means eating a protein rich (not relying on meat) diet with some unrefined carbs like brown rice, oats and rye and limited sugars. Eating little often is key to a healthy blood sugar. By doing this, there are less low sugar points in the day, therefore, less adrenal stimulation and fewer hot flushes and sweats. Follow my 12-step hormone-balancing diet listed below:

- Include hormone-balancing phytoestrogens in the diet.
- Eat more omega 3 fatty acids.
- Increase your intake of fruit and vegetables.
- Change from refined carbohydrates to unrefined.
- Buy organic foods where possible.
- Reduce your intake of saturated fat.
- Make sure you drink enough fluids.
- Increase your intake of fibre.
- Eliminate foods containing chemicals from your diet.
- Avoid or reduce your intake of caffeine.
- Reduce or eliminate alcohol.
- Avoid refined sugar."

Gorman also suggested: "Ensure the diet includes plenty of phytoestrogen-rich foods. These plant molecules have a similar chemical structure to oestrogen and bind to oestrogen receptors on cells. Research shows they may help lessen hormonal imbalances, and reduce menopausal symptoms, including hot flashes, night sweats and vaginal atrophy.

"There are two main forms: isoflavones and lignans. Soy is the richest source of isoflavones, popular food choices include edamame, miso, tempeh, tofu, soya milk and red clover. It is also found in lesser amounts in chickpeas and green peas. Lignans can be found in berries, seeds, flaxseeds, grains, nuts,

and fruits. The great thing is foods rich in phytoestrogens usually contain other powerful plant nutrients, like omega 3 fatty acids, fibre, and antioxidants.

"It is important ensure the diet is rich in nutrients which help to keep bones healthy, especially calcium, magnesium, boron and vitamin K. So, ensure plenty of leafy green vegetables, nuts seeds and whole grains. Vitamin D is important for bone health too, it usually needs to be taken as a supplement, especially in the winter months.

"Always opt for organic where possible to reduce pesticides exposure, known endocrine disruptors, which can negatively affect how hormones function. Include plenty of healthy fats in the diet, oily fish, avocados, nuts, flax seeds. Omega 3 fatty acids can also help increase bone mineral content, reducing the risk of osteoporosis. These healthy fats also reduce inflammation, support brain health, cardiovascular function, and can lower the incidence of hot flushes and vaginal dryness. Cut out or reduce caffeine, alcohol and spicy foods as they can aggravate hot flushes and increase acidity in the body."

Peel continued: "Preventative wise, introducing more plant-based foods has been found to reduce the severity of menopausal symptoms for many women. Really, making sure you do eat a rainbow of coloured vegetables and fruits daily will increase antioxidants in the diet. This helps bring down inflammation in the body, so could help with aches and pains and also mood.

"Many plant foods acts as phytoestrogens, which have been found to reduce menopausal symptoms such as night sweats and hot flushes. The most well-known phytoestrogenic foods include soy products, such as tofu, miso and tempeh, as well as lentils and flaxseeds (linseeds). There are some really simple ways to introduce these foods. Miso paste can be made into a quick soup for lunch, as a glaze for roasting vegetables or even in a salad dressing mixed with soya sauce, rice vinegar, sesame oil and ginger. Have two dessertspoons of ground linseeds mixed in with some berries, natural yoghurt and a mix of nuts and seeds for breakfast. Grind up flax seeds yourself in a small blender, as they are much fresher this way (and it's also more economical)."

SUPPLEMENTS TO SUPPORT

Additional supplements are also important as a recommendation to ensure any nutrition gaps are addressed.

"Particular attention should be paid to bone health, so it may worth considering supplementing with vitamin K, magnesium, boron, and vitamin D," Gorman suggested. "As well as supporting bone health, magnesium is a well-known natural relaxant, helping relieve anxiety, tension and nervousness. Most people are deficient in this essential mineral, so supplementing is a great idea. Topical lotions and oils can be useful for promoting sleep and relaxation at bedtime.

"B vitamins can also be helpful, especially B3, B5 and B6, which are well known for stress relief. A deficiency has been linked to low energy, stress, anxiety, tension, irritability and poor concentration."

Ford also suggested: "Nutrients including vitamins D, E, C, the B vitamins and magnesium and calcium are important during these menopausal years. Apart from getting them from dietary sources, supplements are beneficial in order to ensure that you have optimal nutrients. A good quality multivitamin and mineral would form the foundation of your supplement programme to make sure that you are getting a little bit of everything. You then add in the nutrients listed below in slightly higher amounts, which are known to be helpful for the menopause.

"Omega 3 to top up on essential fats and a phytoestrogen-rich supplement containing fermented soya, hops, alfalfa and red clover or black cohosh. If stress levels are a contributory factor, then add magnesium, B vitamins and Siberian ginseng for the adrenals. The herb, sage, is known to be helpful at the menopause and black cohosh has shown to be effective for the hot flushes and night sweats. The ancient Chinese herb, dong quai, can also help balance hormones."

Lifestyle in other ways must also be considered, trying to be active for both stress relief and a healthy waistline. It can also support healthy joints.

Peel explained: "If you are someone who has been flat out with work and under constant stress for whatever reason, it's really important to find ways to help yourself cope and bring down the stress levels each day in some way.

"Regular physical exercise can reduce the frequency and severity of hot flushes; 3.5 hours of physical activity a week is the average amount of exercise needed to gain the benefits of this, so basically exercise four days a week for 45 minutes. It can also support improving your mood if this is a problem for you and can help support bone density and heart health."

POST-MENOPAUSE CARE

When a woman has made the transition, making her aware of her heightened risk of certain health issues is really crucial.

"The decrease in oestrogen can make women prone to various health problems, including osteoporosis, heart disease, stroke and urinary tract infections. Oestrogen plays an important role in the growth and maturation of bone and the regulation of bone turnover, so a decline in oestrogen can lead to decreased bone mass, disturbed architecture and reduced bone strength," Gorman advised.

"Hormonal changes may also mean increased risk of cardiovascular issues such as stroke, high blood pressure and cholesterol issues. Menopause is associated with a progressive increase in total cholesterol. In particular, an increase in low-density lipoprotein and triglycerides and a decrease in high-density lipoprotein (HDL). Dry skin is common, as oestrogen supports collagen production, which not only helps with elasticity and plumpness in the skin, it helps keep all body tissues moisturised."

She went on: "Urinary tract infections can become more common, vaginal tissue thins and urinary tract loses elasticity increasing the risk of infection. Oestrogen deficiency can also disrupt the bacteria in the vagina, which increases the risk of UTIs. Weight gain is another common problem. This can happen because muscle mass reduces, so there is a decreased need for calories. Exercise, especially resistance training, can help preserve and build muscle mass. It has other benefits too: boosting mood, regulating blood sugar levels and improving cardiovascular function."

Peel agreed, adding: "It is important to remember that we lose the many protective effects of oestrogen post-menopause. This is the time in life to really think about supporting healthy bones with weight bearing exercise and looking after cardiovascular health with a diet that is heart healthy. The Mediterranean diet has been shown to have a positive effect on supporting cardiovascular health, as well as support bone density in post-menopausal women.

"Some women might find they lose muscle strength and mass (sarcopenia) and aren't able to perform in sports to the same level. Following a wholefood diet rich in good sources of protein from fish, poultry and vegetable protein sources, such as nuts, seeds and beans may help support muscle tone."

And Ford pointed out: "There can be an increased risk of heart disease and osteoporosis and accumulating fat around the middle for many women. Cutting back on starchy carbs like white rice, pasta and potatoes is helpful, increasing protein from fish, beans, quinoa and eggs and upping intake of omega 3-rich fish and nuts and seeds, especially walnuts and hemp. Eating a calcium-rich diet keeps bones healthy so focus on dark green vegetables (apart from spinach, which contains oxalates and has a calcium binding effect), tinned oily fish with bones, sesame seeds and phytoestrogens."



Join the NNA as a Nutritional Therapy Student or Qualified Therapist



The Naturopathic Nutrition Association welcomes all Naturopaths and Nutritional Therapists who have an interest in naturopathic principles and recognise the holistic approach to health and wellbeing. You may join at any time of the year.

Member benefits include:

- Free listings on our Register of Therapists and Searchable Public Database of member therapists
- Special discounts and promotions including Insurance, Testing Services, IHCAN, and other CPD events
- Options to register with CNHC and GNC
- Access to the Natural Medicines Comprehensive Database
- Unique opportunity to upgrade to Registered Naturopath (ND) with the GNC

NNA Mentoring Programme

Joining as a student you gain access to our highly regarded mentoring programme specifically targeted at recent graduates and students in the final year of their diploma. The programme is designed to help you set up in practice, hone your clinical skills and address any questions that may arise.



www.nna-uk.com | info@nna-uk.com | 01908 616543

Train to be a Nutritional Therapist

At CNELM, we teach undergraduate and postgraduate courses in nutrition validated by Middlesex University:

- BSc (Hons) Nutritional Science*
- MSc/PG Dip in Personalised Nutrition*

* Accredited by the NTEC for nutritional therapy practice in combination with CNELM's Nutritional Therapy Practice Diploma

Available for full or part-time study and Distance Learning

Short courses in Nutrition and Coaching also available:

- Nutrition Coach Diploma
- NLP Practitioner



Course Enquiries:

Centre for Nutrition Education & Lifestyle Management (CNELM)

T: 0118 979 8686

E: info@cnelm.co.uk

www.cnelm.co.uk

ANP Association of
Naturopathic
Practitioners

SUPPORTING PRACTITIONERS



Who can join? ■ Nutritional Therapists ■ Herbalists
■ Acupuncturists ■ Homeopaths ■ Natural Chefs

www.theanp.co.uk info@theanp.co.uk 0203 319 9315

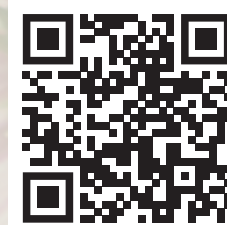
CNM COLLEGE OF
NATUROPATHIC
MEDICINE

Training Successful Practitioners

FREE LECTURE
Scan below

CHANGE CAREER
Train to become a...

- Nutritional Therapist
- Acupuncturist ■ Herbalist
- Homeopath ■ Naturopath
- Health Coach ■ Natural Chef



01342 777 747

naturopathy-uk.com/nifree



Lyme disease protocol – an update

As we continue to see greater incidence of lyme disease, Nutritional Therapists can play a key role in supporting clients living with it. Here, experts in the field update on the latest advice.

There are a number of factors believed to be playing a role in the rise of lyme disease cases we are seeing, not just in the UK but worldwide. What's important to note is just how critical a client's nutritional status is when creating support protocols for them.

When addressing the rise in cases, lyme disease expert, Dr Carsten Nicolaus, founder of Infectolab Americas (USA) and member of The International Lyme & Associated Diseases Society, explained: "If you look at the last two decades in terms of tick-borne diseases, you will find that almost every year, not only have we seen the number of infected people increasing but also the spread of ticks in their habitats. We see this trend worldwide. The fact is that global

warming and climate change in general have contributed strongly to this.

"Europe is subject to the same trend. This can be seen very clearly in the countries along the bird migration routes. In these countries, not only have the tick populations increased but we see many new different tick species as well. While we still see the majority of Ixodes ticks distributed throughout Europe, the distribution and presence of Dermacentor ticks and more recently Hyalomma ticks have also increased significantly. In the past, Hyalomma ticks were found exclusively in the warm guilds of Africa, South America and Asia. This is no longer the case.

"A big concern is the increasing number of microbiomes of the ticks and the number of

different pathogens being seen with significant increases of viruses, bacteria and parasites.”

But he also pointed out: “Other factors also play a role. Our living and working conditions have changed. Changes in working hours have led to more free time for many people, which is reflected in different lifestyles. The majority of us spend more free time in nature and are therefore exposed to a higher risk of contracting lyme disease. The risk of suffering a tick bite during leisure time has increased. If we now also take into account the possible presence of other vectors as well (bloodsuckers), our risk of suffering from lyme disease or one of its co-infections has become much greater. Our changed travel behaviour and tourism also play a major role in this.”

And Rose Holmes, Registered Nutritionist, mBANT, BSc, Dip.ION, PGCE and Education & Training Manager at Rio Health, went on: “Lyme is not a notifiable disease in the UK, and although there are approximately 1,000 serologically confirmed cases yearly in the UK, Public Health England estimates the true number to be approximately 3,000ⁱ, whilst other estimates indicate figures could be far higher and closer to 45,000 cases per yearⁱⁱ.

“World Health Organization data indicates, throughout Europe, the annual number of reported lyme disease cases, has increased, on average, by 65 per cent for the last 20 yearsⁱⁱⁱ. And yet, numbers are likely to be underestimated because case reporting is inconsistent, the chance of misdiagnosis (due to nonspecific symptoms which can mimic other health conditions and false negative blood tests) is high, and many infections go undiagnosed. A general lack of awareness about early symptoms and other possible means of transmission may have impacted on numbers of cases reported.

“Climate change may, in part, account for the rising occurrence of lyme disease. The warmer temperatures are more favourable to ticks which can live longer. Ironically, the increasing trend for healthy lifestyle pursuits such as cycling, walking and trekking may expose more of us to environments where we may be exposed to ticks which transmit the disease.

“Additionally, since a healthy immune system may help keep manifestation of lyme disease dormant, diet and lifestyle may impact numbers of those infected who manifest symptoms. Recent trends of diets high in processed foods and low in nutrients needed for immune function, for example, may play a role in numbers of reported cases of lyme disease. Immunological fitness is essential for the body's ability to appropriately and adequately provide defence against immune assaults from viruses, bacteria, parasites and fungi. Immunological fitness gives greatest capacity for good health.”

UNDERSTANDING LYME

Already discussed is the fact that lyme disease is caused by ticks, but what exactly is it, and how does it affect our body?

“Lyme disease is one of the most common vector-borne diseases in Europe and North America. The vector is usually a tick, but it has now been proven that it can also be another ‘bloodsucker’, such as mosquitoes, horseflies, sandflies, etc. The bite can lead to the transmission of infectious diseases, which the tick usually harbours in its intestine or salivary glands. These infectious diseases can be viral, bacterial or parasitic,” Dr Nicolaus advised.

“The best known are lyme disease, TBE, or babesiosis but there are many others as well. We also speak of borreliosis and its co-infections. If a tick is infected with one of these pathogens and it bites the host (human or animal), the pathogens can be transmitted and cause a typical clinical picture of the infection. As a rule, we always distinguish between three stages of lyme disease. The acute stage, the dissemination stage, and the chronic stage. All stages show different symptoms and require different approaches.”

Holmes continued: “Lyme disease is caused by *Borrelia* bacteria transmitted by ticks and other biting insects. It is predominantly transmitted via ticks from deer, sheep or dogs, which sometimes (but not always) results in a characteristic ‘bull’s eye’ rash. The tick bites the human and can remain attached for hours or weeks, regurgitating into the bloodstream and passing *Borrelia* bacteria and often other pathogens to the human host. These other microbial infections are referred to as co-infections. These can be viral, parasitic, fungal or other bacterial co-infections.

“*Borrelia burgdorferi* (Bb) is the species most discussed with relation to lyme disease. Bb is pleiomorphic, which means it has many shapes or forms. The spirochetal form is the active form. In this corkscrew-shaped form, Bb can attack multiple organ systems, a feature it shares with another well-known spirochete, *Treponema pallidum*, which causes syphilis. Bb cycles between different forms. In its inactive (non-spirochetal) forms, antibiotics are ineffective. When exposed to antibiotics, Bb develops granules and cysts; by morphing into round-body forms, Bb can resist antibiotics. Bb also form biofilm-like colonies to survive unfavourable conditions.”

Looking in further detail, it's important to consider whether this is a disease we can get rid of, or whether it's a case of learning to manage it.

Dr Nicolaus commented: “Opinion is currently divided on this, and the complexity of this infection has been completely underestimated. Lyme disease was seen as an infectious disease that was easy to diagnose and easy to treat. And that was a fatal mistake. We have now learnt that there are many diagnostic gaps and treatment challenges that we are still very difficult to deal with today.

“Some therapists and patients believe that once infected, one suffers from lyme disease or its co-infections for the rest of one's life. They even say that these pathogens can never be eradicated. Due to many patients who have experienced relapses and the frustrating journey experienced by many lyme patients, the paradigm ‘once lyme disease, always lyme disease!’ is still held by many.

“My opinion on this is that this theory has been convincingly disproved. After more than 30 years of experience, I have seen and learned something different. Up until very recently, we did not have much experience in dealing with the disease. *Borrelia*, for example, was only discovered in 1981 by Professor Willy Burgdorfer and later named after him. With our current knowledge and understanding, we can treat lyme disease and its co-infections very successfully if we do it right!”



IN CLINIC ASSESSMENT

Reaching a lyme diagnosis through GPs can take some time, and so many people turn to a practitioner for help – and there are a number of testing methods to be used. But how can you know if you are potentially dealing with lyme in terms of symptoms?

“Lyme disease (not lymes) is also referred to as lyme borreliosis. It is a multi-microbial inflammatory infection with systemic (all-body), multi-symptom and often chronic effect. Symptoms manifest in three stages, affecting skin, organs, joints and neurological health. In the first, acute, stage, 25-40 per cent develop a rash, which often appears shaped as a ‘bull’s eye’. Other symptoms include headache, flu-like symptoms, stiff neck, fatigue and sometimes Bell’s palsy. The rash can spread all over the body and re-appear months/years later,” Holmes commented.

“In stage two, symptoms include migrant arthritis, pain/weakness in arms/legs, appetite-loss and neurological symptoms such as memory loss. Joint pain is common but not in all cases. Stage three symptoms include fatigue, memory loss, arthritis, heart rhythm abnormalities and nervous system abnormalities.

“*Bb* actively migrate from the blood into connective tissues and proliferate in skin, heart, joints and central nervous system. *Bb* activate enzymes, trigger dissolving of collagen and colonise in collagen fibres; this may account for numerous symptoms, particularly symptoms relating to skin and/or joints. Neurological symptoms may also occur, including hearing loss depression, extreme mood swings, memory dysfunction and seizures.”

She went on: “*Bb* can depress the immune system, allowing other co-infections to take hold. Common co-infections include Bartonella,

Babesia, herpes simplex virus (HSV) that causes cold sores, Rickettsia, Candida, roundworm and hookworm. Leaky gut, severe food allergy reactions, adrenal/thyroid exhaustion and brain fog are common in lyme disease. Many infected individuals are unable to continue their normal lifestyles. And the disease may have psychological and social triggers and impact.”

Dr Nicolaus added: “Symptoms can start anywhere from three to 30 days after the bite. These may vary considerably, depending on the stage of the infection. In some cases, infected patients won’t notice any symptoms until months after the bite. Early symptoms include:

- Fever.
 - Chills.
 - Headache.
 - Fatigue.
 - Muscle and joint pain.
 - Swollen lymph nodes.
 - All of those symptoms are also common with flu. In most Lyme infections, one of the first symptoms that can be noticed is a rash.
- Without treatment, symptoms can get worse. These might include:
- Severe headache or neck stiffness.
 - Rashes on other areas of your body.
 - Arthritis with joint pain and swelling, particularly in your knees.
 - Drooping on one or both sides of your face.
 - An irregular heartbeat.
 - Inflammation in the brain and spinal cord.
 - Shooting pains, numbness, or tingling in hands or feet.

He added: “There is often a big time frame experienced between the

transmission of the infection and the actual outbreak of the illness. It can be months or even years before patients become ill, and this has been seen in about 20 per cent of patients due to their immune system not being able to eradicate the bugs completely after transmission.”

And when it comes to testing options, Dr Nicolaus added: “After being exposed to a tick bite or if lyme disease is suspected based on the typical symptoms in the first few weeks of infection, the test may still be negative. This is because antibodies often take a few weeks or a period of time to show up. Hopefully soon, there will be tests that can diagnose lyme disease in the first few weeks after being exposed. The earlier one gets treated, the less likely it is that they will get worse. In most countries, a two-tier test-approach is mandatory, and diagnostics have to be started with an ELISA test. In the case of any pathologies showing up in this test, it should be followed up with a Westernblot or Immunoblot test for confirmation.

“Unfortunately, the reliability of ELISA is very poor and around 50 per cent of cases fail and result in a negative. The Westernblot or Immunoblot are, however, a lot more accurate with a failure rate of between six-15 per cent. All these tests are indirect test systems. Alternatively, doctors can choose to run direct test systems like a PCR test instead, which look for the *Borrelia* DNA or for one of its co-infections. Beside the Serological and PCR test systems, which look for antibodies, a new other test method called T-cellular testing was established a couple of years ago. T-spot tests are also well known under the term of EliSpot or I-Spot tests. These diagnostic tools look into the cellular side of the immune response. The tests are very specific and sensitive and can be used not just for diagnostics, but just as importantly for treatment monitoring purposes.”

NUTRITIONAL STATUS

An important question is how much of a role does nutritional status play in how badly a person suffers?

Dr Nicolaus advised: "Nutritional status plays a very important role. Lyme disease and its co-infections will always lead to very complex illnesses. This means that in chronic stages of these infectious diseases, patients will suffer from many other health conditions too. Some of these are caused by a constant upregulation of inflammatory processes with others caused due to immunosuppression and the weakness of the immune response.

"At the same time, the overall majority of patients have a significant lack of vitamins, minerals and other essentials. Before starting any specific antimicrobial treatment, or in parallel with the start of treatment, we have to identify any deficiencies. It is crucial to fill up the gaps of these deficiencies and to prepare patients properly or one can expect very delayed responses or sometimes even treatment failures for patients. For that reason, it is though essential to have a very experienced and knowledgeable physician or other healthcare professional on site."

And what about when it comes to a protocol to be recommended?

"Lyme disease protocol must include antimicrobials alongside detoxification and immune support. It is certainly possible to be symptom-free. Those with symptoms need to ensure antimicrobial support to address the various infections. The detox and immune support needed alongside the antimicrobial support needs to continue even after the symptoms are abated," Holmes advised.

"Immunological fitness is essential for the body's ability to appropriately and adequately provide defence against immune assaults from viruses, bacteria, parasites and fungi. Immunological fitness gives greatest capacity for good health. Ongoing detox support should include something like daily use of chlorophyll-rich barley grass juice, which is also nutrient-rich and alkalizing."

She went on: "It is important to realise that killing the invading pathogens is not enough, and can, and often does, make the lyme patient feel worse. Protocols must include detoxification and immune support, in addition to antimicrobials. It is important to realise that, for many lyme sufferers, protocols that address lyme disease must be followed long-term. And for most lyme sufferers, immune system and detoxification processes need long-term support."

Looking in greater detail at this, Holmes went on: "The human immune system requires nutrients to function optimally and confer protection. Lyme disease disrupts the immune system, depleting zinc, manganese, magnesium and affecting white blood cells. Immune support protocols

should include these nutrients and others, particularly selenium, probiotics and vitamins C and D. Echinacea, astragalus, Japanese knotweed (*Polygonum cuspidatum*) and *Usnea barbata* may also aid immune regulation.

"The quality of the diet impacts nutrient status, as well as gastrointestinal function. This may impact detoxification and elimination, important considerations for immune health and defence against microbes. Toxins weaken the immune system, allowing *Bb* and co-infections to thrive. Man-made toxins create conditions that allow access to aluminium. Bacteria, fungi and parasites – which produce biotoxins – are thought to respond defensively to EMF (electromagnetic field). So, microbial infection and environmental conditions contribute to the toxin load.

"When antimicrobials are used to address the bacterial, viral, fungal and parasitic infections, toxins are produced as part of the 'die-off' of these microbes. An inevitable part of the healing process, die-off can result in what is referred to as a Herxheimer Reaction. It is very important to realise this before starting any programme; it is essential that a detoxification protocol is initiated right from the start.

"So, our increasing toxic environment encourages conditions whereby microbial infections may thrive, and microbial infections create toxins. And when someone with lyme uses antimicrobials to address the infections, die-off reactions are inevitable. For all these reasons, detoxification must be incorporated into any protocol to address lyme disease.

"First in any detox programme is to ensure the elimination routes are working: colon, liver, kidney, lungs, blood, lymphatic system and skin. It is also important to eliminate/avoid toxin exposure. The diet should be fresh and organic (to avoid antibiotics in livestock, as well as agricultural pesticides). Skincare and household products should be assessed. Addressing EMF should be considered. *Bb* cycles between the different forms; in its inactive (non-spirochetal) forms, antibiotic therapy is ineffective; short courses of conventional antibiotics are not only ineffective, they also very often result in relapses. When exposed to antibiotics, *Bb* develops granules and cyst and, by morphing into round-body forms, *Bb*

can resist antibiotics."

Dr Nicolaus also suggested: "If the patient is willing to accept and implement a special diet and corresponding lifestyle changes, this can have extreme improvements with treatment and also shorten the healing process. In general, anti-inflammatory diets can be recommended without reservation. Any holistic approach to treatment must include combating all forms of inflammation. We must always bear in mind that any chronic infection automatically leads to an inflammatory reaction, which can be more or less pronounced. Any form of inflammation can also lead to the same or similar symptoms caused by the infections themselves.

"In order to achieve this goal, different approaches can be taken. All diets should ideally be alkaline and free of sugar, gluten and dairy products. All food should be organically grown or sustainably produced if possible. Any form of processed food should be avoided. Studies have shown that caffeine consumption and smoking should be discontinued as much as possible, as it has been shown to prolong therapy and sometimes to lead to insufficient response. It is also very important that patients get enough sleep and exercise, possibly under medical or other therapeutic supervision."



ADDITIONAL SUPPORT

Certain nutrients are going to be critical for sufferers and so a targeted supplement protocol can often be recommended.

Offering suggestions for the range of options when it comes to supplements, Holmes advised: "Research has shown that both *Uncaria tomentosa* (cat's claw) and *Otoba parvifolia*, two broad-spectrum antimicrobials from South America, are effective against different forms of *Bb* and many of the co-infections. *Tabebuia impetiginosa* (Pau d'Arco/lapacho), another South American botanical, is also a broad-spectrum antimicrobial, particularly known for its anti-fungal effects.

"A variety of herbs may benefit in cases of parasitic infection (for example, *Inula helenium*, *Achillea millefolium*, *Juglans nigra*, *Eugenia caryophyllata* and *Quassia amara*). For parasite infections, including for infections of *Babesia*, these botanicals singly or in combination may help. Viral infections and co-infections can be addressed with flavonoid-rich *Houttuynia cordata*, *Cecropia strigosa*, and *Astragalus membranaceus*. Chinese skullcap (*Scutellaria baicalensis*) is a particularly useful antiviral and may help in cases of respiratory infections and herpes simplex infections (cold sores), as well as for other herpes viruses such as EBV (Epstein-Barr virus) and CMV (cytomegalovirus). Other useful antivirals include kalmegh (*Andrographis paniculata*), clove and EGCG, which is found in high levels in matcha green tea.

"Bacterial infections of *Borrelia* can be addressed with use of Japanese knotweed (*Polygonum cuspidatum*) and teasel. And, for addressing Bartonella infections, a tincture combining Japanese knotweed and red root may help. Chlamydia, another bacterial infection commonly co-infecting with *Borrelia* in Lyme disease, can be addressed with use of *Usnea barbata* and goldenseal.

"*Borrelia* and many of the common co-infections are extremely difficult to treat and, whilst addressing some types of infecting microbe, other types may be given greater facility to overgrow. Broad-spectrum antimicrobials and biofilm disruptors can be potent allies in reducing and eliminating unwanted micro-organisms. Natural supplements which may aid detox include sources of chlorophyll (for example, chlorella and barley grass). Particularly useful to minimise Herxheimer or die-off reactions is the South American herb,



manayupa (*Desmodium molliculum*). This is especially effective when used alongside *Pimpinella anisum*, which may assist with detoxification of heavy metals and supports the central nervous system.

"Vitamin C is an important immune-support supplement, and a good, high-strength vitamin C may help increase resistance and improve symptoms in Lyme disease. Liposomal vitamin C is highly bioavailable, and this method of delivery provides approximately 20 times the power of non-liposomal vitamin C. Dry liposomal powders (encapsulated) offer all the advantages of liposomal delivery without the added sweeteners and preservatives found in liquid liposomal products."

And Dr Nicolaus suggested herbal antimicrobials as a core protocol.

"We have access to some well recommended alternative herbal treatment protocols for all tick-borne diseases and their accompanying health conditions. There is no more place for one size fits all recommendations anymore! The best approaches are specific individually optimised treatment protocols that are customised for every individual patient," he commented.

"Support protocols include immune support, anti-inflammatory support, GI support, detox for mould and heavy metals if needed, sleep support, mental support, support for cognitive impairments (brain fog), vitamins and minerals in case of deficiencies, MTHFR support protocols in case of pre-genetic conditions, support for Herxheimer reactions, and specific support to address any individual symptoms."

THE LONG-TERM OUTLOOK

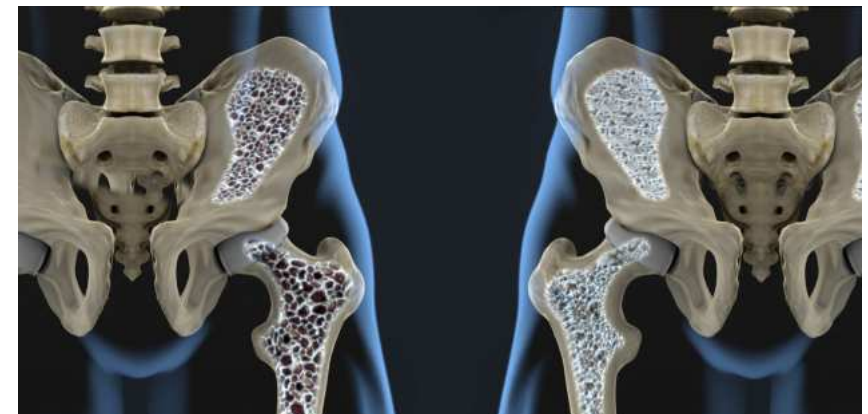
With such varying symptoms experienced, there can be a range of longer-term issues that people may struggle with, especially if diagnosis takes a long time.

"Unfortunately, we see many of them in patients with Lyme disease and its co-infections. The main reason for this is the fact that it will almost always take years to get the diagnosis of Lyme. In two German studies, it was shown that patients needed four and a half years minimum to get the right diagnosis. In other case reports, it sometimes took even longer (in some cases decades before the patient received the right diagnosis," Dr Nicolaus reported.

"Patients often get into trouble in later stages if they or their doctor misses the early stage of Lyme disease. This is often due to lacking any symptoms, the misinterpretation of symptoms or just ignorance regarding what the right treatment approaches are based on the guidelines. The outbreak of the chronic Lyme stages can be very difficult to diagnose because of so many unspecific symptoms, which can be found in many other illnesses as well. We very often see chronic fatigue, cognitive impairments, neuropathies, hormonal imbalances (thyroid, adrenals, sexual hormones, etc.) chronic pain syndromes, cardiac issues (heart rhythm disturbances, myocarditis), general malaise, low fever, etc., which can be present with many other diseases as well.

"In general, Lyme disease is seen as a very complex illness. In chronic stages, it can affect any organ system and can cause multiple symptoms and ailments later on. This can be very challenging for the patient and the doctor."

And Holmes added: "Those who progress to stage three symptoms of Lyme disease seem to be most at risk of more specific long-term health issues. In particular, fatigue, mental fog and aches/pains are commonly experienced, with symptoms often being compared to fibromyalgia and chronic fatigue syndrome. In some cases, permanent nervous system damage may develop. Conversely, for those who receive early antimicrobial (antibiotic) treatment, Lyme symptoms may not progress. The need for long-term immune and detoxification support, however, should be stressed and heeded."



The Global Leader in Mushroom Nutrition Products

Founded in the United Kingdom in 1998, Mycology Research Laboratories Ltd. (MRL) has an extensive library of proprietary mushrooms strains (which ensures the correct specie and variety) to give you confidence in the identity of the mushrooms.

MRL's proprietary cultivation technology consistently cultivates uniform, contaminate-free biomass powder.

Hericor-MRL is cultivated in accordance with both ISO 22000:2018 certification (in Europe) and to EU/UK organic standards.

Hericor-MRL biomass powder is then filled to FSSC 2200 standards in the Netherlands. The product is available in either 100gr or 250 gr powder forms with 2 g spoons.



MRL

**Mycology Research
Laboratories Ltd.**

Website:

www.mycologyresearch.com



Hericor-MRL

Enzyme Nutrition to Maintain a Healthy Digestive Immune System

Hericor-MRL promotes a healthy digestive system for those with compromised digestive function. Besides supplying beta-glucans, Hericor-MRL provides three important enzyme groups:

Enzymes that prevent oxidative stress:

- Laccase
- Superoxide dismutase

Enzymes that inhibit cellular growth:

- Protease
- Glucose amylase

Enzymes that promote detoxification:

- Peroxidase
- Cytochrome-P 450

▼ Distributors of MRL products:

Natural Dispensary Ltd

Tel: 01453-757-792

Aneid UK Ltd

Tel: 01582-485-209

Breakspear Medical

Tel: 01442-261-333 ext: 291



EXPERT ADVICE

Our panel of nutritional experts offer readers advice on dealing with a variety of issues.



What is the most appropriate nutritional protocol for addressing pain and inflammation, and are there any other considerations to recommend?

LINDSAY POWERS ADVISED: Inflammation is the immune system's natural response to perceived injury, whether physical injury, infection or a toxic substance. However, this describes acute inflammation, which should pass when the immune system has done its job.

These days, we see chronic inflammation, which is more prolonged and damaging to the body. Chronic inflammation may be due to the environment we live in with more exposure to toxins, a diet high in refined or ultra-processed foods, prolonged stress, and so on. When inflammation becomes chronic, it can cause fibrosis or scar tissue. Damage can occur to organs or tissues, such as joints and blood vessels. Health conditions such as arthritis, heart disease, autoimmune disease, cancer and obesity, are linked to inflammation, both cause and effect.

Acute inflammation is more associated with symptoms such as pain, redness and swelling in the body. However, chronic inflammation can also result in long-term pain conditions and suffering. According to research by the British Pain Society, chronic pain affects more than two-fifths of the UK population. Around 28m adults live with pain that has lasted for three months or longer [1].

It is essential to follow an anti-inflammatory diet, free from sugars and ultra-processed foods. Aim to

include various fruits and vegetables, whole grains, lean protein, healthful fats, and spices. Have sources of anti-inflammatory omega 3 fatty acids, such as oily fish, grass-fed beef, flaxseeds, hemp seeds, chia seeds and walnuts.

There are also many anti-inflammatory herbs, nutrients and enzymes available to ease inflammation naturally. One of the most well-known is curcumin, the active ingredient of the turmeric root. Curcumin has many studies supporting its use for arthritis and pain conditions due to its potential as a COX-2 inhibitor, helping reduce inflammation and pain [2]. Serrapeptase is a proteolytic enzyme also recommended for its powerful anti-inflammatory properties and ability to clear unwanted scar tissue from the body.

Electroacupuncture is a safe alternative to acupuncture that can be easily self-administered with a handheld device. Electroacupuncture helps to block pain by activating bioactive chemicals in your body. A study on knee osteoarthritis showed that electroacupuncture was effective on chronic pain after two weeks of treatment [3].

Therefore, following an anti-inflammatory diet and lifestyle, using specific supplements and electroacupuncture can help target inflammation and pain and support the body's natural healing process.



ABOUT THE EXPERT

Lindsay Powers is a Nutritional Therapist and Health Coach Manager at the supplement brand, Good Health Naturally.



How do you identify a high quality medicinal mushroom product?

HANIA OPIENSKI EXPLAINED: With the increasing number of medicinal mushroom products on the market, how can you decide which are worth the investment and which to pass on?

The first thing to look for is how the mushrooms were grown. Primarily, are they certified organic? Or, at a minimum, does the company screen for and guarantee absence of pesticides, heavy metals and other contaminants (ideally via third party certification)? Mushrooms are like sponges; they absorb toxins from their environment. This is great for bioremediation of soil, but when you are consuming any mushrooms, you need to know that they have not absorbed any environmental toxins that could do you more harm than good.

Secondarily, what part of the mushroom (or how much actual mushroom) is in your product? You have probably seen everything from spore, mycelium, fruiting body and full spectrum biomass products. For the most concentrated product, choose one that is 100 per cent fruiting body, or mycelium. Anything that is classified as full spectrum biomass or mycelial biomass means you are getting a combination of the grain growth medium and any actual mushroom content at an undisclosed ratio. Choose mushrooms grown on a non-grain medium like wood, woodchips, or made in a bioreactor. Worryingly, a report in *Nature* found that 75 per cent of reishi products tested contained only traces or no fungal beta glucans at all (i.e. no active compounds).

To really know how potent your mushroom product is the packaging needs to state standardised amounts of active compounds, as opposed to just a generic polysaccharide percentage. A total mushroom polysaccharide percentage does not tell you what concentration of the highly immune modulating beta-glucans you are getting vs the less beneficial alpha-gluten content (basically starch). Mushrooms grown on grain tend to have a higher level of alpha-gluten versus mushrooms grown traditionally on wood, which are naturally higher in beta-glucans. A good ratio of beta-glucans to alpha-glucans is at least 3:1 or higher. Mushrooms also have a range of other health-promoting active compounds, such as terpenes, polyphenols, sterols, vitamins and minerals. A good product will state the actual amount of each of these also. It's key to look for pure unadulterated products that are 100 per cent mushroom powder or extract (ideally micronised for optimal absorption), rather than granules, or containing fillers, binders, or flow agents.

Finally, certifications such as GMP will guarantee pharmaceutical grade production process and claims. The most conscientious companies will employ sustainable practices, have proprietary strains and do clinical research on their products.



ABOUT THE EXPERT

Hania Opienski, BA Hons, BSc, LicAc, BHSc, MBAC, is a Naturopathic Nutritionist, Traditional Chinese Medicine Acupuncturist and Life Alignment healing practitioner. She applies a holistic approach to health using a synergy of natural Eastern, Western, and energy medicine. She is the Education Lead and a Mycotherapy Specialist Consultant for Hifas da Terra UK and Ireland. She is a passionate educator and advocate of providing clients with the information and understanding to empower them to take responsibility for their health and wellbeing via their diet, emotional management, mindset, and lifestyle choices.



Can you explain the role of curcumin as an effective recommendation for inflammation?

MAYA QURESHI ADVISED: It is now clear that excess inflammation is at the root of many diseases, and it's only being exacerbated by modern lifestyles. Factors such as increased stress levels, dietary sensitivities, inadequate sleep, hormonal imbalances and environmental toxins combine to trigger the body's inflammatory response system. Left unchecked, this can lead to persistent, low-grade inflammation, and we are just beginning to understand the impact this has on us.

Over the counter anti-inflammatory drugs like Ibuprofen are effective at dealing with acute inflammations, but they are known to damage the intestinal lining with prolonged use, which in turn leads to further inflammation and the cycle continues.

Food is medicine and an anti-inflammatory diet like the Mediterranean diet can undoubtedly reduce inflammation in the body. But people with chronic conditions often have higher nutritional requirements and need to supplement their diets to optimise their health.

Turmeric has been used in Ayurvedic and Chinese medicine for centuries to treat and prevent a number of health conditions. In the last two decades, modern science has caught up with this knowledge and

uncovered a wide range of benefits associated with this powerful spice.

Turmeric has more than 300 naturally occurring components, but one group, namely curcuminoids, is known to provide the most health-promoting benefits. Curcumin, a polyphenol (micronutrients naturally occurring in plants), is considered the most active component of this group, primarily because it has potent anti-inflammatory and antioxidant properties.

Studies have shown that curcumin has therapeutic effects on various inflammatory diseases due to its effect on a number of biological processes in our body, notably:

- Curcumin has the ability to block nuclear factor kappa B (NF-κB). Often referred to as the 'granddaddy of all pro-inflammatory signalling pathways', controlling the transcription of our DNA, cytokine production and cell survival.
- Abnormal NF-κB activation contributes to the development of various autoimmune, inflammatory and malignant disorders, including rheumatoid arthritis, atherosclerosis, inflammatory bowel disease, multiple sclerosis and malignant tumours.
- Similar to over-the-counter anti-inflammatory drugs (OTC), curcumin has been shown to reduce the production of hormone-like substances

called prostaglandins that cause inflammation, swelling and pain in our bodies. But unlike OTC drugs that negatively impact our gut health, curcumin improves gut health by enriching and diversifying the good bacteria, which helps strengthen the gut lining.

■ Oxidative stress is caused by the accumulation of free radicals, which can affect our DNA repair system, leading to decreased cellular and physiological function and promoting apoptosis (cell death) and inflammation. Studies have demonstrated that curcumin has the ability to reduce oxidative stress by neutralising the accumulation of free radicals, thus reducing inflammation in the body.

Curcumin makes up only about three per cent of turmeric. In order to benefit from it, supplementation is necessary. The average dose of curcumin used in most studies is between 500-1000mg/day for at least six weeks.

When it comes to absorption, curcumin is notorious as it is hydrophobic (meaning it repels water), with up to 90 per cent passing through the digestive system. Studies suggest that taking curcumin along with black pepper can improve absorption rates by 2,000 per cent. Taking a liposomal curcumin supplement is an advanced and effective way to ensure that nutrients are delivered at the cellular level.



ABOUT THE EXPERT

Maya Qureshi is the founder of Rhythm Nutrition, a small start-up that develops supplements with a focus on movement. Her first product, Deflame, is a Gold Nourish award-winning anti-inflammatory liquid supplement. Her desire to optimise her health led her to train as a Functional Medicine Health Coach. She hopes to qualify in February 2022.

A new source of calcium: where nature meets technology

Martina Della Vedova, Nutritionist, MSC, examines the role of calcium, and the correct supplement protocols.

Calcium is the most abundant mineral in the body, and as the NHS UK and the American National Institute of Health (NIH) declare, calcium is involved in muscle contraction, regulating heartbeat, hormone secretion stimulation, conducting nerve impulses, keeping our teeth healthy, and, of course, bone health. Some 99 per cent of calcium is stored in teeth and bones and it makes up two per cent of your body weight.

Calcium is one of the oldest dietary and most popular supplements, osteoporosis numbers are rapidly increasing, and the incidence is burdening our ageing population. According to the International Osteoporosis Foundation, one in every three women over 50 and one in every five men over 50 will experience osteoporotic fractures. So, why is this calcium we are consuming not enough?





WHEN IS SUPPLEMENTATION HELPFUL?

A healthy diet comprehends calcium-rich foods as green leafy vegetables, such as cabbage, broccoli and okra, fish, especially sardines and pilchards, dairy products, nuts and seaweeds. But at times, even if we make sure we have plenty of these foods, tests still show low levels of calcium.

Bone is a dynamic living tissue that is constantly being broken down and rebuilt. Normal bone metabolism is dependent on a complex network of nutrients and hormones that have to work together: stomach acid is crucial for the ionisation of calcium and its absorption, oestrogen is key for the incorporation of calcium into the bone, thyroid and parathyroid glands are necessary at controlling blood concentration of calcium (M Murray, J Pizzorno, 1997). Very solid scientific research is now confirming how vitamin D and vitamin K2 are also required for correct calcium absorption and metabolism to take place.

Any imbalances that impact the functioning of these essential co-players and hormones will have direct consequences on bone health.

There is a strong correlation between pre-menopausal bone density and the risk of developing osteoporosis, and building strong bones should be a lifelong goal.

Can calcium supplementation help improve bone health? A two-year study on 214 peri-menopausal women supplementing with calcium has shown an efficient bone density increase (Elders et al, 1994), which highlights the importance of calcium supplementation.

THE QUESTION ABOUT ABSORPTION

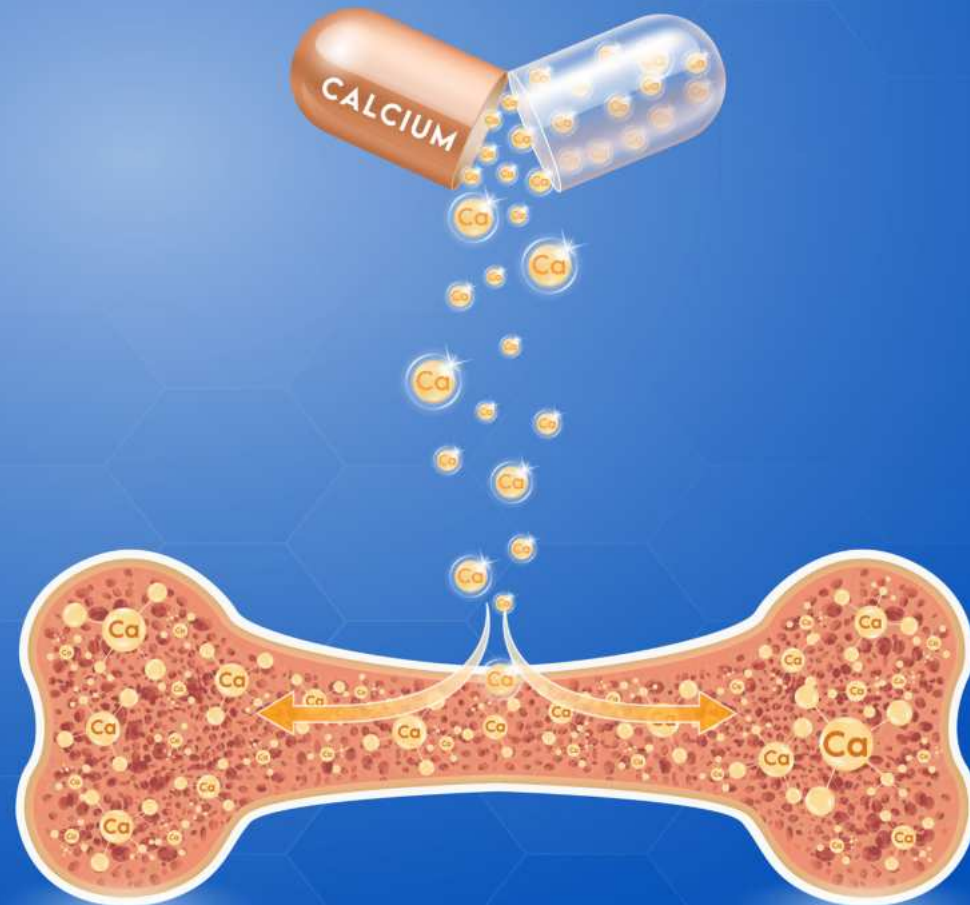
The market nowadays offers many options and confusion arises easily. Different forms of minerals carry different qualities, absorption rates, and are a result of different technologies. The aim is always to recreate the demanded conditions in the body for the nutrient to be efficiently absorbed, metabolised, and utilised. What we know for sure is that whether from vegetables and seeds, or fish and dairy, humans have historically received calcium together with the scores of other elements that are naturally present in the food chain.

AN EDIBLE ORGANIC CALCIUM-ALGAECAL

Algaecal is the world's only certified organic and vegan plant calcium. Similar to the structure of a coral, the live *Algas calcareas* plant is harvested ecologically and sustainably by indigenous people on the shores of South America. The algae are handpicked, dried in the sun and milled into a powder. The whole-food powder has approximately 30 per cent calcium, four per cent magnesium and an array of other very important synergistic trace minerals. Tests on algaecal reported the presence of over 73

distinct elements, which have been historically present in calcium-rich foods, the way nature intended: boron, manganese, silica, strontium, vanadium, zinc, selenium, copper, and magnesium, the list goes on and on.

There are intricate interactions between minerals in our biochemistry and it is widely known that elevated levels of isolated calcium deplete others, so supplying the body with the array of minerals needed for health let them dance harmoniously.





SYNERGY AND COFACTORS FOR OPTIMAL BONE HEALTH

There are other important considerations when looking at the ability to utilise and absorb calcium in the human body.

According to the Vitamin D Counsel, optimal blood levels of vitamin D 25 (OH) sit between 60-90ng/ml. Individuals who are vitamin D deficient absorb just 10-15 per cent of the calcium they ingest. A three-year double blind, placebo-controlled trial on 199 men and 246 women showed that when vitamin D levels were optimal, the ability to absorb calcium was higher as the risk of fractures decreased significantly (B Dawson-Hughes, 1997). Another study showed calcium absorption rates higher in those who had vitamin D supplementation, setting the sufficient blood concentration of vitamin D at more than 80ng/ml (P. Mikosch et al. 2009).

Once we have calcium in the bloodstream, where does it go? Increased calcification of the arteries has been linked to high calcium intake and has caused concerns around safety and efficacy of calcium supplementation. Atherosclerosis is a key player in coronary heart disease and with cardiovascular disease being the number one cause of mortality worldwide, we want calcium in the bones, not in the arteries.

Step in vitamin K2. Vitamin K2 is essential for depositing calcium in the bone and K2 deficiency has been considered as a key factor for the risk of arterial calcification (MJ Shearer, 2000). Vitamin K2 activates two enzymatic reactions, matrix GLA protein, which directs calcium out of blood vessels and arteries, and osteocalcin for calcium bone deposition (MJ Shearer, 2000).

STUDIES ON ALGAEAL

The discovery of algaecal has compelled a number of studies on its efficacy in bone health, which have proven the benefits and effects of this natural and organic supplement form.

In one study, three groups of post-menopausal women took different algaecal formulations and all groups had bone density increases in one year ranging from 1.3-four per cent increases (Kaats et al, 2011). The average post-menopausal woman is expected to lose one per cent bone density per year, with traditional calcium supplements only slowing this marginally.

Another study published in peer reviewed journal, *Nutrition*, involved 200 men and women over a six-month period. It showed that algaecal increased bone density by more than two per cent average (JE Michalek et al, 2011). In comparison to other studies on calcium, this was a real increase in bone mass density.

A longer seven-year study of 107

participants looked at prolonged use of algaecal supplementation on bone density and assessed safety. This study showed women in their mid-60s gained 7.3 per cent more bone density in a linear fashion, with an average of one per cent increase per year and safety was well established from regular blood chemistry (Kaats et al, 2016).

Researchers at Harvard Medical School and University of Connecticut carried out a study to place plant sourced algaecal against the most popular calcium supplements. Researchers looked at proliferation and mineralisation in cultured human osteoblast cells. The study concluded that algaecal increased DNA synthesis of osteoblast activity in producing new bone by 300-400 per cent more than other options (RS Adluri, 2010).

Algaecal achieved GRAS (Generally Recognized As Safe) status in 2010 after a safety profile was established.

REMEMBER THAT...

The dynamic nature of bone tissue gives greater chances of self-repair than other tissues. Taking care of our bone tissue from a young age is crucial to set optimal and solid conditions for long lasting wellbeing. A correct diet, regular exercise and, when necessary, a complete and bioavailable calcium formula can really make a change in our quality of life, setting the basis for ongoing health.



Martina Della Vedova (BSc, M.Sc, CNMDip NT, mBANT, CNHCreg) obtained a Master in Functional

Genomics in Italy and trained as a Nutritional Therapist in London. She has worked for NaturesPlus as a Nutritional Advisor since 2016 and also sees clients privately.



IHCAN2022
conferences

IN-PERSON AND VIRTUAL FOR 2022

NEW DATES FOR 2022

THE LEADING EVENTS
FOR INTEGRATIVE HEALTH
PRACTITIONERS

26 FEBRUARY 2022 - VIRTUAL

26 MARCH 2022 - 155 BISHOPSGATE, LONDON

30 APRIL 2022 - VIRTUAL

25 JUNE 2022 - IHCAN SUMMIT, 155 BISHOPSGATE, LONDON

3 SEPTEMBER 2022 - 155 BISHOPSGATE, LONDON

19 NOVEMBER 2022, VIRTUAL

**PLACES
ARE
LIMITED**

BOOKING OPENS SHORTLY AT [IHCANCONFERENCES.CO.UK](https://ihcanconferences.co.uk)



Easy vegan cuisine

With the new year bringing with it the annual Veganuary campaign, get inspired in the kitchen with these plant-based recipes.



Cheesy chkn, leek and mushroom pie



The Berliner



Togarashi tacos



Cheesy chkn, leek and mushroom pie

This big flaky-topped pie will serve a hungry party of six. I love this pie for many reasons. It's easy to find vegan chicken substitutes at the local shops. And the recipe takes less than 30 minutes to prepare. The unbaked pie also freezes really well for several months, so I often make two at the same time, or several smaller ones to freeze for another time. I don't think anything beats homemade ready-made food!

Serves 4-6

Ingredients:

For the sauce:

- 120g cashews, soaked in cold water for three hours
- 500ml almond or soy milk
- 9g tapioca starch
- 4tbsp nutritional yeast
- 1tsp garlic powder
- ½-1tsp sea salt, to taste

For the filling:

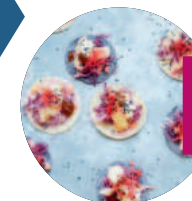
- 2tbsp olive oil
- 2 shallots, finely chopped
- 2-3 leeks, thickly sliced
- 200g chkn pieces (ready-made vegan pieces)
- 225g chestnut mushrooms, cleaned and halved
- ½ bunch of freshly chopped chives
- 1tbsp Dijon mustard
- 1 x 500g packet ready-made vegan puff pastry
- Plain flour, for dusting
- 2-3tbsp vegan milk, for glazing

Method:

- Preheat oven to 190°C (375°F) Gas 5.
- Drain and rinse the soaked cashew nuts, and add to a blender with all the other ingredients for the sauce. Blitz together to make a smooth paste, then pour into a small saucepan. Heat gently over a low heat and stir well until the mixture thickens.
- For the filling, add the olive oil to a large deep pan and put over a medium heat. Add the shallots and leeks and cook for 10-12 minutes until soft and translucent. Add the chkn pieces, mushrooms, chives, mustard and cashew sauce. Stir well, then pour into a large baking dish, or several small ones.
- Roll out the pastry on a well-floured surface and put on top of the pie filling. Trim and pinch the edges. Using a pastry brush, dip into the vegan milk and brush the top(s) of the pastry before baking. Make two or three small holes to allow the steam to escape.
- Place on the middle shelf of the preheated oven and bake for 40-50 minutes until the pastry is crispy and golden brown. Serve immediately.



THE BERLINER



TOGARASHI TACOS



The Berliner

I've eaten plenty of veggie and vegan kebabs/kabobs over the years, but there is a flavour profile and texture to kebab/kabob meat that I hadn't eaten in well over three decades until we visited Berlin and found ourselves enjoying fantastic mock meat as well as beer. We found vegan kebabs, burgers, doughnuts and a vegan weekend brunch spot with a queue winding down the street. Berlin really is a city full of vegan surprises.

Serves 4

Ingredients:

- 4tbsp flavourless coconut oil, or use solid vegetable fat, such as Trex
- 1 small carrot, peeled and finely chopped
- 120g dried TVP mince, soaked in 120ml boiling water with 1tsp yeast extract/Marmite
- 3tsp garlic powder
- 2tsp onion powder
- 1½ tsp ground cumin
- 2tsp ground coriander
- 2tsp smoked paprika
- 2tsp dried oregano or mixed herbs
- 1tsp ground rainbow pepper
- 1 small onion, coarsely grated
- 75g fresh breadcrumbs, white or brown
- 200g vital wheat gluten
- 1tsp salt
- 1tsp freshly ground black pepper

For the 'slaw:

- 2 tomatoes, roughly diced
- 1 red onion, roughly diced
- ¼ red cabbage, thinly sliced
- ¼ white cabbage, thinly sliced
- Handful of fresh mint leaves, roughly chopped

- 1-2tbsp pickled chillies
- Sea salt, to season

For the sumac dressing:

- 1tsp ground sumac
- Juice of 1 orange
- 2 garlic cloves, chopped
- 1-2tbsp agave or maple syrup
- 2tbsp good quality olive oil
- 1tbsp balsamic vinegar

To serve:

- 150g vegan plain yogurt
- 75g fresh pomegranate seeds
- 4 large vegan pitta breads
- Hot pepper sauce, such as Encona (optional)
- Small loaf pan, lightly oiled

Method:

- Put a medium frying pan over a medium-high heat and add the coconut oil or vegetable fat and carrot. Cook gently for four to five minutes. Drain the TVP mince, retaining the yeast broth. Add the mince to the pan along with the spices and seasoning and mix well. Cook for a minute or two, adding a splash of the broth to stop it sticking.
- Remove from the heat and then tip

into a large, deep bowl. Add the onion, breadcrumbs and vital wheat gluten. Mix well, then add the yeast broth slowly to make a very firm dough. Mix well, then rest for 20-30 minutes in the fridge.

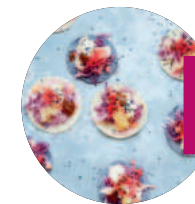
- Preheat the oven to 160°C (325°F) Gas 3. Put the dough into the oiled loaf pan and tightly wrap with a layer of baking parchment, then a sheet of foil. Wrap tightly so it is a snug fit. Put the pan in the preheated oven and bake for two to three hours.

- Mix together all the 'slaw ingredients in a large bowl. Mix together the dressing ingredients and season to taste. Pour over the slaw and mix well. Set aside for at least 20-30 minutes. Remove the loaf from the oven and leave to rest for 15 minutes. Unwrap and turn out.

- Mix together the yogurt and pomegranate seeds in a small bowl, reserving a few of the seeds for garnishing. Cover and set aside.
- Place the pittas into a medium oven or toaster and lightly brown for a few minutes. Slice open and fill with 'slaw as desired. Add generous layers of sliced 'doner meat', and slather with drizzles of pomegranate yogurt sauce. Scatter with a few mint leaves, pomegranate seeds and a drizzle of hot pepper sauce. Serve immediately.



CHEESY CHKN, LEEK AND MUSHROOM PIE



TOGARASHI TACOS

Togarashi tacos

These little tacos are a street food favourite on my corporate party menus. I have restaurant friends who shudder at the mention of the word 'fusion'. But togarashi spicing works well in the tempura for this baja-style taco. I order my corn tacos from an online supplier. You can buy them in small quantities, and they come with a long shelf life. The chilli dressing is one of my new favourites, with smoky ancho and tangy mango, and it will keep for several weeks in the fridge.

Serves 6

Ingredients:

For the 'slaw:

- ¼ red cabbage, thinly sliced
- ¼ white cabbage, thinly sliced
- 2tbsp canned sweetcorn, drained and rinsed
- Freshly squeezed juice of 2 limes
- 1tbsp agave syrup or maple syrup
- ½ tsp sea salt
- ½ small red chilli, finely chopped

For the ancho chilli and mango dressing (makes approximately 450ml jar):

- 2 large dried ancho chillies, soaked in boiling water for 15 minutes, then drained
- 1 small ghost chilli, soaked in boiling water for 15 minutes (or use three to four very hot bird's eye chillies), then drained
- 355ml mango purée
- 1tsp sea salt
- 1-2tbsp unrefined sugar or agave syrup

For the filling:

- 2 x 410g cans heart of palm, drained and rinsed

- 150g cornflour or potato starch
- 150g plain flour
- 1tsp sea salt
- 2tsp togarashi spice mix
- 200-300ml sparkling water

To assemble:

- 20 mixed blue and yellow corn tacos, 10cm/4in width
- 6tbsp vegan mayonnaise
- 1tbsp pickled ginger strips
- 1tsp black sesame seeds
- Approximately 450ml vegetable oil, for deep frying

Method:

- To make the 'slaw, mix together all the ingredients in a bowl. Set aside for one hour, longer if possible, to allow the cabbages to soften.
- To make the dressing, add the chillies, 120ml water, the mango purée, salt and sugar or agave syrup to a pan. Bring to a simmer for 10 minutes, remove from the heat and purée using a stick blender. Taste the sauce and add more sugar and salt as needed. If too thick, add a little more water. Set aside at room temperature.

- To make the filling, pat the heart of palm dry, then slice lengthways. Put the cornflour, flour, salt and togarashi spice mix into a large bowl. Add 200ml of the water and whisk to make a loose batter. Add more water as needed, so the batter thinly coats the back of a spoon. Heat the oil in a large, deep pan to about 190°C/375°F. Test the temperature of the oil by dropping in a breadcrumb and if it sizzles without burning, the oil is ready.
- Dip the heart of palm pieces into the batter to coat, shake gently to remove the excess, then lay gently in the hot oil. Fry in batches for about two to three minutes on each side until the batter is crispy and golden. Drain on paper towels. Fry the remaining pieces, and set aside on a baking sheet in a low oven to keep warm.
- Warm the tacos according to the packet instructions, then put two or three on each plate. Add a spoonful of the 'slaw mixture to each. Halve the fried palm pieces, then lay several pieces on top of each taco. Drizzle each with the mayo and some ancho chilli & mango dressing, and top with ginger and sesame seeds if using. Serve immediately.



CHEESY CHKN, LEEK AND MUSHROOM PIE



THE BERLINER



Plant-Based Burgers by Jackie Kearney, published by Ryland Peters & Small (£16.99). Photography by Clare Winfield © Ryland Peters & Small.

Pride in purity

A brand with its roots in the practitioner world, Pure Encapsulations continues to focus on its core philosophy of making clinically effective products formulated with purity and quality in mind.

The Covid-19 pandemic has shone the light brightly on nutrition, with many supplement brands experiencing a huge hike in sales when the virus hit. But across the supplement category, there are huge differences in terms of quality, efficacy, and purity.

One brand that does things differently is Pure Encapsulations, a company that leads the way in functional medicine with its practitioner-targeted range of products. And despite the challenges of the pandemic, this commitment to quality has never wavered.

Joanna Dziedzic, Nutritional Therapist and Business Development Manager at Pure Encapsulations, commented: "As a business, Pure Encapsulations doesn't stray away from its founding philosophy, which will continue into its future. The brand was developed over 30 years ago by two practitioners who wanted product that didn't contain unnecessary additives or allergic ingredients used in food supplements, as well as products that were clinically effective. Since then, Pure Encapsulations has become the leading brand in functional medicine because of commitment to purity, quality, and efficacy.

"What makes us unique on the supplement market is our in-house manufacturing, which is very unusual as many brands use

contractors. In-house manufacturing is fundamental to producing free-from hypoallergenic products that would not be possible otherwise."

She added: "Similarly, extensive testing of all raw material and finished products is not common in the industry. Pure Encapsulations goes beyond what is required with third party testing so you can be sure that the products are safe, high quality, and effective."

Of course, the pandemic created many challenges for brands, so how did Pure fare?

"The pandemic had a very big impact on our business, and still has. We faced an unusual number of new and unknown challenges. The sales of some lines went sky high; it was very hard to predict what was going to happen in the next months. It was challenging but we did everything to meet the high demand and ensure patients can support their health with our products," Joanna commented.

"In particular, we faced an increased requirement for immune and stress categories. Although the demand remains high, our supply is stable and easier to forecast. We notice that the interest in our sleep and energy products is growing constantly too."



THE CORE VALUES

As already highlighted, Pure Encapsulations is a business with a set of values that it remains committed to. And it is these that help to make it unique in the marketplace.

"Scientific research is a top priority for Pure Encapsulations. Only those compounds whose potency and clinical value have been validated through science and research go into our formulas. More than 60 product specific clinical studies have been published in the leading peer reviewed journals and we have more than 20 ongoing studies," Joanna pointed out, adding: "Pure Encapsulations was the recipient of the 2016 *Nutrition Business Journal (NBJ)* Award for Achievement in Science & Innovation."

These core values also relate to how the products are put together.

Joanna added: "Pure Encapsulations products are formulated by nutritionists, PhDs and leading medical experts to provide strengths and dosing consistent with clinical experience and published research. Ingredients are selected for levels of active compounds' bioavailability and the most biologically active forms.

"Our medical advisory board includes many of the biggest names in functional medicine, for example, Dr James Greenblatt in psychiatry, Dr Samuel Yanuck in immunology, and Dr Felice Gersh, an integrative gynaecologist. With their experience and guidance, we can further our mission to formulate exclusive supplements and created unique educational tools that help support a wide range of specific health areas."

As a company with roots in the nutrition

world, it is a brand loved by practitioners. So, what support does it offer to nutritional therapists?

Joanna advised: "Pure Encapsulations is a professional brand first and foremost. The strongest link between Pure Encapsulations professional food supplements and consumers is the presence and guidance of a qualified healthcare provider, such as Registered Nutritional Therapists or related health professional.

"Pure Encapsulations is the most trusted and prescribed brand by health professionals (based on surveys by both *Nutritional Business Journal* and the Institute of Functional Medicine). Our focus is on supporting the industry, advancing the functional medicine and world class continuing professional development and education.

"This year, Pure Encapsulations was announced number one brand for continuing professional education (as voted in the UK and Ireland winner of Best Education Series by health professionals in *IHCAN* magazine 2021). As an industry leader, Pure Encapsulation is proud to share our ever-growing knowledge of nutrition science through educational events and on-demand education to support the practice of UK health care professionals."

And the company plans to continue innovating to ensure it remains at the forefront of cutting-edge supplements.

"Amongst many great products that we've launched this year, our liposomal products were exceptionally successful and greatly received by practitioners.



Understanding the demand for liposomal vitamin C in the last year, we made every effort to deliver high standard product, using best quality material and most innovative manufacturing method," Joanna pointed out.

"We have some exciting new products in 2022. We are focusing on many important areas to make sure we offer range of options. Key areas we are working on is personalised nutrition and nutrigenomics, specifically in neurological and gastrointestinal health. Pure Encapsulations' goal is to equip practitioners with unique and essential tools for their busy and demanding practice, this has always been, and it will continue to be our focus and philosophy."



QUALITY COMMITMENT

Pure Encapsulations manufactures its own products, something that can be unusual in the supplement world. And there are various points to note here in terms of how the brand can be assured of quality.

"Clean products without unnecessary ingredients are important for health-conscious people. Pure Encapsulations products use only high-quality pure substances without allergy inducing additives. All raw materials and finished products are rigorously third-party tested for purity and quality, including heavy metals, over 70 pesticides, oxidation, adulterations, authenticity, and potency to expiry," Joanna explained.

"Pure Encapsulations control the entire manufacturing process in our own state-of-art facility, from selection of raw materials to product encapsulations. Each ingredient and every final product are independently tested for potency and purity. Stability testing is performed on all products to ensure they meet specifications at the end of their shelf life."

Pure Encapsulations is not only GMP certified but it exceeds the standards of the USP for supplement manufacturing. And considering ingredients is also a critical component, especially at a time where allergies and intolerances are prevalent.

Joanna explained: "Food allergies and sensitivities are on the rise, creating a unique need for nutritional supplements that are well tolerated and hypoallergenic. All Pure Encapsulations products are free from wheat and gluten, egg, peanuts, trans fats and hydrogenated oils, GMOs, magnesium stearate, titanium dioxide, carrageenan, coatings and shellacs, artificial colours, flavours and sweeteners, unnecessary binders, fillers and preservatives.

"One-10 per cent of adults and children in the UK have a hypersensitivity to foods, and up to 20 per cent experience some adverse reactions. Also, free from foods are perceived as healthier as people become aware of allergens and additives. Allergens and potentially harmful additives are surprisingly common in food supplements but are often overlooked. For example, the market leading multivitamin in the UK contains the following additives: sodium benzoate,

sorbic acid, BHT (butylated hydroxytoluene), artificial red, yellow, and blue aluminium lake, sucrose, palm oil, gelatine, acacia gum, calcium searate, crospovidone, hypromellose, polyethelyne glycol, talc, and titanium dioxide.

"Hypoallergenic manufacturing procedures and third-party testing is fundamental to ensure safety for people with allergies. For example, Pure has Gluten Free Organization Certification (GFCO) and has found gluten contamination in probiotics that would not have been discovered otherwise."



I-Mag giveaways



We showcase a selection of giveaways on offer to readers this issue.



Nutri Advanced Glutathione Plus

Glutathione Plus is a unique and targeted formulation containing reduced glutathione as Setria Glutathione and potentiated by a synergistic blend of herbal extracts and key nutrients. Oral glutathione is known to have poor bioavailability, meaning it may not be absorbed and utilised by the body. Glutathione Plus features Setria Glutathione, which is a reduced glutathione with enhanced bioavailability that has been clinically shown to increase blood glutathione levels when taken orally.

I:Win: We have 25 to give away.

TIME HEALTH PREMIUM SAFFRON COMPLEX

More than just a spice, saffron acts as a relaxant and is popular for its ability to improve mood and sleep while helping to relieve symptoms of stress. Affron saffron is widely regarded as some of the highest quality in the world, having undergone three separate clinical studies that demonstrate its positive benefits. Time Heath's formula is boosted with choline, quercetin and omega 3 for additional cognitive support and free from additives.

I:Win: We have five to give away.



MINAMI Platinum Elite + Vitamin D3

One of the most impressive products in the MINAMI Omega-3 range, Platinum Elite + Vitamin D3 has the highest levels of omega 3 per softgel – up to 90-95 per cent – and because it's in triglyceride form, it's absorbed more quickly and easily by the body. Vitamin D3 helps support the immune system, as well as muscle function after intense exercise, which makes it a great choice for active individuals. MINAMI Platinum elite is certified by Informed Sport, making Platinum Elite + Vitamin D3 a safer choice of omega 3 for athletes.



I:Win: We have 20 to give away.

CYTOPLAN WHOLEFOOD MULTI

Vitamin and minerals are essential nutrients that are involved in many important roles in the body, including converting food into energy and supporting immunity. Unfortunately, nutrient shortfalls are common, meaning many of us are not getting the levels of nutrients we need for health. Nutrient shortfalls can be caused by many factors, including our food choices, depleted soil, how our food is grown, processed and preparation methods. There are also factors outside of our diets that can play a part, such as a sedentary lifestyle, genetic variations, illness, old age and medications. Getting adequate nutrients every day is essential to help your body function and whilst a multivitamin and mineral should not replace a well-balanced diet, it can be an important addition to help bridge the nutrient gap. Cytoplan's philosophy has been that nutrients are best delivered to the body 'in the same form as food' and Wholefood Multi is a testament to this as an all-round vitamin and mineral supplement providing excellent levels of nutrients.



I:Win: We have 10 to give away.

Altrient®

CUTTING EDGE LIPOSOMALS



Neutrient

The Science of Nature

PUT SOME PREP IN YOUR STEP



- ✓ FIRST OF ITS KIND MIXED ASCORBATE POWDER WITH D-RIBOSE
- ✓ ADDED DHQUERCETIN COMPLEMENTS THE ACTIONS OF VITAMIN C
- ✓ WITH ASCORBYL PALMITATE THE FAT SOLUBLE FORM OF VITAMIN C
- ✓ CONTAINS MAGNESIUM ASCORBATE
- ✓ AVAILABLE IN 4 & 8 MONTH SUPPLY



f @AbundanceandHealth @abundanceandhealth
ABUNDANCEANDHEALTH.COM



Gluten Free



Vegan

ABUNDANCE & HEALTH

HIGH PERFORMANCE NUTRIENTS