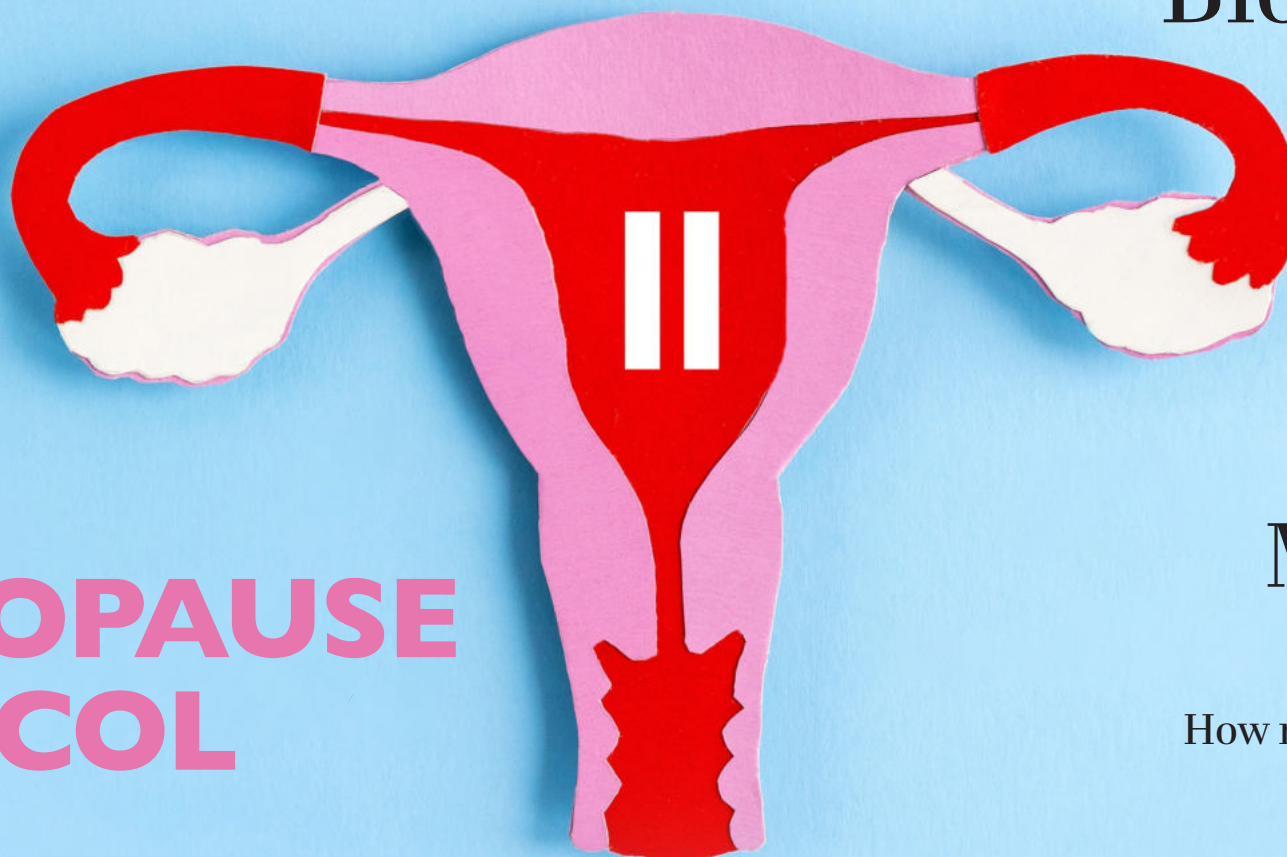




Nutrition I-Mag

WWW.NUTRITIONIMAG.COM RESEARCH AND EDUCATION FOR TOMORROW'S PRACTITIONER

MAY/JUNE 2023



Blood sugar balance

Your guide to managing type 2 diabetes risk

A MENOPAUSE PROTOCOL

Nutritional and lifestyle management of the menopause

Mushroom science

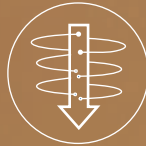
How medicinal mushrooms can support common health complaints

THE IHCAN SUMMIT – HAVE YOU BOOKED YOUR PLACE? ♦ GUIDE TO KIDNEY HEALTH
♦ READER GIVEAWAYS ♦ THE LATEST RESEARCH NEWS ♦ RECIPES FOR HEALTH RESTORATION

Click to book
IHCAN
Conference



MegaMag[®] Range Magnesium Formulas



Optimum
Absorption



No Side
Effects



Strong
Formula



Great
Taste

MegaMag[®] PeriMeno Plus

"Amazing!! My night sweats and hot flushes are almost non-existent and I can sleep through the night."

Naz, Nutri Advanced Customer

★ ★ ★ ★ ★

MegaMag[®] Night Formula

"I have been using this for a couple of years and it is really good especially if you have restless legs in the evenings. Helps for a good night sleep."

Amanda, Nutri Advanced Customer

★ ★ ★ ★ ★



Proud Sponsors Of



Available to order from:
nutriadvanced.co.uk
0800 043 5777



In partnership with:



Welcome



Although *Nutrition I-Mag* is dedicated to education, and to supporting students through their nutritional therapy courses, this time of year, the focus on education really dials up as we approach the annual IHCAN Summit.

Taking place on June 24 at 155 Bishopsgate, London, this event is designed for both practising Nutritional Therapists, recent graduates and students, and is not only an opportunity to listen to some of the industry's leading authorities but allows you the chance to connect with top brands in the nutrition market, and also meet with like-

minded individuals.

This year, we have an expert line-up that includes Dr Tom O'Bryan, Mary Beth Gonzalez and Prof Sarper Diler, among others. You can read about the full line-up and topics to be discussed at www.ihcanconferences.co.uk, where you can also book your place. And remember that by attending, not only can you make exciting new connections and further your knowledge, you can also earn valuable CPD points.

The same can be said for this magazine, as by reading each issue, you can top up your points – all you need to do is **click here**, answer some questions,

and register your points. And in this issue of *Nutrition I-Mag*, we have a collection of articles, with contributions from leaders in the field of nutrition offering their insights. From protocols to managing the menopause to dealing with the diabetes epidemic, right through to the health benefits of medicinal mushrooms, there is a vast amount of knowledge to be gained from reading this issue.

And finally, we must mention our sister-title, *Integrative Healthcare & Applied Nutrition (IHCAN)* magazine, has launched a free Podcast. Presented by a Kirsten Chick, a Nutritional Therapist with 20 years' experience in clinic as well as teaching, writing and running workshops, it brings all the education you know and love from *IHCAN* to an easily-digested 45 minute podcast. Guests so far include naturopathic doctor, Dr Cheryl Burdette, IHCAN Conference fan-favourite, Dr Tom O'Bryan, and Jo Gamble, the first functional medicine practitioner in the UK. To listen to series one, visit www.ihcan-mag.com/podcast or search for 'IHCAN magazine Podcast' in your podcast app. For advertising and sponsorship opportunities in future episodes, email sales@targetpublishing.com

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 Keeley Holland, Sue McGarrigle, Rachel Hoyle.

SALES & PUBLISHING DIRECTOR Ruth Gilmour e: ruth.gilmour@targetpublishing.com KEY ACCOUNTS DIRECTOR Abigail Morris e: abigail.morris@targetpublishing.com

SALES EXECUTIVE Hannah Gurney e: hannah.gurney@targetpublishing.com

DESIGN/PRODUCTION Daniella Comparetto e: daniella.comparetto@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



MENOPAUSE MATTERS

The best approach to supporting clients experiencing this major shift



MEDICINAL MUSHROOMS

Experts highlight the most researched mushroom products for good health



FOCUS ON BLOOD SUGAR

How to better manage blood sugar, and reduce the risk of type 2 diabetes



INGREDIENT FOCUS

An in-depth guide to making the right magnesium recommendations



RECIPES

Take inspiration from these goodness-filled dishes



COMPANY PROFILE

We take a closer look at the nutritional offering at Rhythm Nutrition

NEWS

The developments in the world of nutrition

RESEARCH

We bring you up to date with the latest scientific news

PRODUCT WATCH

What's new to market?

EDUCATION

Be sure to book your place at the forthcoming IHCAN Summit

ASK THE EXPERTS

Nutritional experts answer your questions

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:



Sue McGarrigle

Sue McGarrigle ND DiplON mBANT, mGNC is a Clinical Nutritional Therapist and Naturopath and has practiced since 2001. She is Technical Manager at Bionutri. As a lecturer to college and university students to Masters level, Sue has trained hundreds of healthcare and medical practitioners in many aspects of nutritional therapy. She writes as a regular contributor of specialist nutrition articles and has been a guest speaker at national level. Her lectures offer a comprehensive approach to nutrition practice and practical naturopathic techniques. Sue is also a member of the BANT Professional Practice Committee.



Helen Drake

Helen Drake Bsc (Hons), Dip Nutritional Therapy, mBANT, rCNHC, AFMCP joined Cytoplan in 2016 as a Nutritional Therapist based in the South East, who offers tailored expert advice to Cytoplan customers and support to practitioners and students. As a BANT and CNHC Registered Nutritional Therapist, Helen worked in private practice and with clients suffering from a wide range of conditions, including fertility and hormonal imbalances, digestive issues, skin conditions, arthritis and weight management. In 2012, Helen also began as lecturer at the College of Naturopathic Medicine.



Alice Bradshaw

Alice Bradshaw is a qualified Nutritional Therapist with a passion for health writing. She has worked in the natural health industry for 25 years and is Head of Education and Nutrition Information at Terranova Nutrition.



Keeley Holland

Keeley Holland studied Biomedical Science at Sheffield Hallam University before starting her career as a Molecular Biologist. Now, as New Product Development Manager at award-winning natural health brand, BetterYou, Keeley has many years' experience in nutrition and is an expert in delivering pioneering, world-leading supplements for the UK and globally.



Sophie Barrett

Sophie Barrett is a Medical Herbalist and Mycotherapy Adviser at Hifas da Terra. Sophie Studied Herbal Medicine and Naturopathy at The College of Naturopathic Medicine, gaining over five years of clinical training and research. Having learned healing traditions from around the world and realising the importance of living in harmony with nature, she set up her own practice to educate and serve patients seeking optimum health. Sophie's mission is to empower people to look after their own health from a preventative perspective, harnessing the healing power of plants and fungi.



Dominika Gutek

Dominika Gutek joined BioCare after completing a Bachelor's in Human Nutrition and a Master's in Nutritional Therapy. After spending years in the fitness industry as a personal trainer, she decided to study nutrition to get a better understanding of how diet and lifestyle can affect different health conditions. Her mission is to help others become healthier and happier versions of themselves, and to support them through their health and fitness journey. Throughout education and her own experience, she's developed a particular interest in gut health.

News Bites

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

Nutrition leaders gather to debate future of food system

Leading food and nutrition experts have discussed what's really needed to get ourselves and our planet into shape.

The British Nutrition Foundation recently curated a panel discussion chaired by Sarah Mukherjee MBE, CEO of Institute of Environment Management & Assessment (IEMA) and former BBC Environment Correspondent.

Keynote speaker Henry Dimbleby MBE, former lead non-exec board member at DEFRA, author of the National Food Strategy and co-founder of Leon, was joined by panel members, Barbara Bray MBE, Food Safety & Nutrition Consultant, Emma Revie, CEO of The Trussell Trust, and Tanya Steele CBE, CEO of WWF-UK.

Elaine Hindal, Chief Executive of the British Nutrition Foundation, opened discussions with a vision for, and the barriers to, achieving a future where everyone has access to a healthy, sustainable diet, while the panel engaged directly with practical ideas of how to overcome key barriers, including affordability, an environment that fails to promote healthier, more sustainable options, and poor food and health literacy.

The key conclusion of the discussion and audience interaction included that in the face of significant challenge, it has never been more important to bring together interdisciplinary experts in this field, to share ideas and insight about how we can take practical action together.

It was also said that considering diet and sustainability as separate issues is no longer credible. Steele highlighted the intimate connection between choices about what we eat – with the impact and increasing pace of biodiversity loss. Meanwhile, cross sector collaboration with industry to advance the process of behavioural and dietary change is critical to unlock progress.



Specifically, the scale and impact of change possible within the out of home sector was noted as an important area where collaboration is required.

The discussion heard that ultimately, the urgency of the collective challenge was underlined by Henry Dimbleby, who described a failure to engage with how we produce and consume food to be quite simply an existential threat. Indeed, how we feed our planet and our continued success as a species is the subject of his new book, *RAVENOUS, How To Get Ourselves And Our Planet Into Shape*.

He commented: "Diet-related disease is now the biggest cause of preventable illness and death in the developed world – far greater than smoking. Food production is responsible for a third of global carbon emissions and is the single biggest cause of biodiversity collapse, deforestation and water pollution. The way we eat is so damaging to our planet that it actually threatens our survival as a species."

The panel concluded with unanimous agreement that the UK has a leading role to play in demonstrating the positive impact of dietary change, and the clear urgency required.

MenaQ7 rebrand described as next era of K2

The people behind the MenaQ7 brand have unveiled a new brand identity as it earmarks the next era of vitamin K2.

Gnosis be Lesaffre has announced the new identify for its uniquely scientifically backed vitamin K2 as MK-7 – MenaQ8, the established K2 category creator with more than 22 published human clinical trials.

While the brand has remained relatively unchanged for the past 14 years, with a focus on validated benefits for bone health

in children and adults and cardiovascular health in adults, after being acquiring by Gnosis in 2021, the company recognised the growing potential of vitamin K2 for more areas of health, marking the perfect time to introduce the new MenaQ7 Natural Vitamin K2 as MK-7.

Marc Philouze, Gnosis by Lesaffre General Manager, explained: "The foundation of clinical evidence using MenaQ7 is what built the vitamin K2 category and shaped our understanding of this important nutrient as we know it today. We believe the brand has signified

'Quality Confirmed by Science', which is why so many of our partners include the logo on their product labels, marketing collateral, and websites.

"Yet research is beckoning the continuation of that pioneering spirit, and more work must be done to confirm vitamin K2's expanding role in supporting other areas of health. To that end, we have decided to introduce a new logo and brand identity for this new journey."

The pillars of science, expertise and support will anchor the brand on this new path of innovation, which led to the

magnifying glass component of the logo. Other new elements are the logo's colours and tagline.

"The visual identity introduced has been designed to better connect with our customers and the industry, and represent the work we do, utilising what nature has to offer and the protection of our planet's resources," Philouze added. "As we look to the future, we see nothing but promise and potential, particularly as the benefits of vitamin K2 are expanding. Here, again, we will lead in that discovery with MenaQ7."

MenaQ7
NATURAL VITAMIN K2 AS MK-7

Guide to adrenal transformation

A new book aiming to help support adrenal protocols has been published.

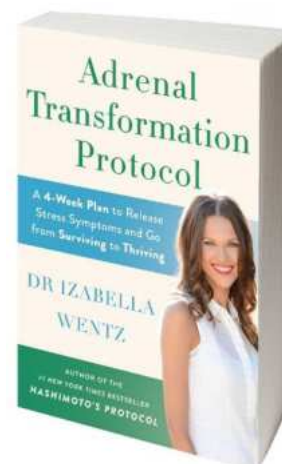
Dr Izabella Wentz, author of the number one *New York Times* Bestseller, *Hashimoto's Protocol*, has now penned *Adrenal Transformation Protocol: A Four-Week Plan to Release Stress Symptoms and Go from Surviving to Thriving*. She is an internationally acclaimed thyroid specialist and a licensed pharmacist, who has dedicated her career to addressing the root causes of autoimmune thyroid disease after being diagnosed with Hashimoto's thyroiditis in 2009.

The book is designed to address the growing problem of adrenal dysfunction and offers a path to healing, with the four-week program combining powerful diet and lifestyle changes, offering a solution to those suffering from adrenal dysfunction.

Like her breakout book, *Hashimoto's Protocol*, the new book translates the latest in scientific research to help patients eliminate

symptoms conventional medicine has failed to address or even acknowledge.

Complete with self-assessments, condition-specific workarounds, schedules, exercises, and more than 40 recipes, *Adrenal Transformation Protocol* lays out a comprehensive, easy-to-follow program to help anyone who suffers from fatigue, poor memory, sleeplessness, and more. Readers are taught how to replenish (using nutrient dense foods to communicate to our bodies that there is an abundance of food, and we are safe), reenergise, and revitalise (sending our body safety signals by doing things we enjoy).



B Corp certification for Cambridge Commodities

Cambridge Commodities has become the latest to receive B Corp certification.

The ingredients supplier joins a growing list of companies in the food and nutrition space that are also B Corps, having been certified by B Lab.

With its HQ located in Ely, Cambridge Commodities has become known in the local area for its charity work and rapid growth, providing jobs for people in and around Cambridgeshire.

Organisations that have been certified by B Lab are all working towards the same goal of transforming the global economy to benefit all people, communities, and the planet. B Lab started in 2006 with the idea that a different economy was needed, and that business could lead the way towards a new, stakeholder-driven model.

B Lab became known for certifying B Corporations, which are companies that meet high standards of social and environmental performance, accountability, and transparency.

James Stevens, CEO at Cambridge Commodities, commented: "I



was extremely proud when we recognised that our core principles were very much in line with the ideals of the B Corp certification. Staff happiness, reducing our environmental impact, dedicating time to charitable work, and questioning our standards of governance in an ever-changing world have always been our absolute focus, and always will be.

"Our dedicated 'B Team' has been working tirelessly over the past few months to collate all the information we need to prove we meet the strict criteria, and we couldn't be happier that we qualify. We will endeavour to improve our score every day and look forward to building a close relationship with B Lab."

Royal praise for Viridian



Viridian Nutrition has been named as a recipient of the prestigious King's Award for Enterprise.

The family-run supplement firm, based in Daventry, Northamptonshire, has been recognised for excellence in business in International Trade for Outstanding Continuous Growth in overseas sales over six years.

Over the period 2015-2021, overseas sales have grown by 390 per cent, with the percentage exported rising to over 30 per cent. Viridian's markets range from Iceland to South Africa, to Continental Europe. With currently more than 25 distributors, the ethical nutrition company employees around 50 staff across the business.

Cheryl Thallon, Viridian Founder and MD, commented: "It's a great honour to accept this regal

award acknowledging not only the success of our team and customers, but also our ethical commitment to spreading health and happiness across the globe. King Charles has long championed organics and complementary medicine and we applaud his continued work in these and other fields."

The King's Awards for Enterprise was previously known as The Queen's Awards for Enterprise, and the new name reflects His Majesty The King's desire to continue the legacy of HM Queen Elizabeth II's by recognising outstanding UK businesses. The award programme, now in its 57th year, is the most prestigious business award in the country, with successful businesses able to use the esteemed King's Awards Emblem for the next five years.



In Research

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

High dose magnesium linked to lower dementia risk



New research has suggested that a higher daily dose of magnesium can reduce the risk of developing dementia.

More magnesium in our daily diet leads to better brain health as we age, according to scientists from the Neuroimaging and Brain Lab at The Australian National University (ANU), who say an increased intake of magnesium-rich foods, such as spinach and nuts, could also help reduce the risk of dementia.

The study of more than 6,000 cognitively healthy participants in the UK aged 40-73 found people who consume more than 550mg of magnesium each day have a brain age that is

approximately one year younger by the time they reach 55 compared with someone with a normal magnesium intake of about 350mg a day.

Participants completed an online questionnaire five times over a period of 16 months. The responses provided were used to calculate the daily magnesium intake of participants and were based on 200 different foods with varying portion sizes. The ANU team focused on magnesium-rich foods such as leafy green vegetables, legumes, nuts, seeds and wholegrains to provide an average estimation of magnesium intake from the participants' diets.

Lead author and PhD researcher, Khawlah Alateeq, from the ANU National Centre for Epidemiology and Population Health, commented: "Our study shows a 41 per cent increase in magnesium intake could lead to less age-related brain shrinkage, which is associated with better cognitive function and lower risk or delayed onset of dementia in later life. This research highlights the potential benefits of a diet high in magnesium and the role it plays in promoting good brain health."

Study co-author, Dr Erin Walsh, who is also from ANU, added: "Since there is no cure for dementia

and the development of pharmacological treatments have been unsuccessful for the past 30 years, it's been suggested that greater attention should be directed towards prevention. Our research could inform the development of public health interventions aimed at promoting healthy brain ageing through dietary strategies."

The researchers found that a higher intake of magnesium in our diets from a younger age may safeguard against neurodegenerative diseases and cognitive decline by the time we reach our 40s.

"The study shows higher dietary magnesium intake may contribute to neuroprotection earlier in the ageing process and preventative effects may begin in our 40s or even earlier," Alateeq went on. "This means people of all ages should be paying closer attention to their magnesium intake. "We also found the neuroprotective effects of more dietary magnesium appears to benefit women more than men and more so in post-menopausal than pre-menopausal women, although this may be due to the anti-inflammatory effect of magnesium."

The study has recently been published in the *European Journal of Nutrition*.



Western diets linked to chronic liver disease

A new link has been established between western diets high in fat and sugar and the development of non-alcoholic fatty liver disease, the leading cause of chronic liver disease.

New research from the University of Missouri School of Medicine has identified the western diet-induced microbial and metabolic contributors to liver disease, advancing our understanding of the gut-liver axis, and in turn the development of dietary and microbial interventions for this global health threat.

"We're just beginning to understand how food and gut microbiota interact to produce metabolites that contribute to the development of liver disease," explained Co-principal investigator, Guangfu Li, PhD, DVM, Associate Professor in the Department of Surgery and Department of Molecular Microbiology and Immunology.

"However, the specific bacteria and metabolites, as well as the underlying mechanisms were not well understood until now. This research is unlocking the how and why."

The researchers explained that the gut and liver have a close anatomical and functional connection via the portal vein. Unhealthy diets change the gut microbiota, resulting in the production of pathogenic factors that impact the liver. By feeding mice foods high in fat and sugar, the research team discovered that the mice developed a gut bacteria called *Blautia producta* and a lipid that caused liver inflammation and fibrosis. That, in turn, caused them to develop non-alcoholic steatohepatitis or fatty liver disease, with similar features to the human disease.

The study can be found in the journal, *Nature Communications*.

Power of Med diet on brain health confirmed



Researchers at the University of Newcastle have revealed that a Mediterranean diet may reduce the risk of dementia by almost a quarter.

The new study, which is published in the journal, *BMC Medicine*, is one of the biggest studies of its kind as previous studies have typically been limited to small sample sizes and low numbers of dementia cases.

The team of researchers found that individuals who ate a Mediterranean-like diet had up to 23 per cent lower risk for dementia than those who did not.

Scientists analysed data from 60,298 individuals from the UK Biobank, a large cohort including individuals from across the UK, who had completed a dietary assessment. The authors scored individuals based on how closely their diet matched the key features of a Mediterranean one. The participants were followed for almost a decade, during which time there were 882 cases of dementia. They considered each individual's genetic risk for dementia by estimating what is known as their polygenic risk, a measure of all the different genes that are related to the risk of dementia.

The authors found there was no significant interaction between the polygenic risk for dementia and the associations between Mediterranean diet adherence. They say this may indicate that even for those with a higher genetic risk, having a better diet could reduce the likelihood of developing the condition. This finding was not consistent across all the analyses

and the authors propose further research is needed to assess the interaction between diet and genetics on dementia risk.

Dr Oliver Shannon, Lecturer in Human Nutrition and Ageing at Newcastle University, led the study with Professor Emma Stevenson, and joint senior author, Professor David Llewellyn.

Dr Shannon commented: "Our study suggests that eating a more Mediterranean-like diet could be one strategy to help individuals lower their risk of dementia."

John Mathers, Professor of Human Nutrition at Newcastle University, added: "The good news from this study is that, even for those with higher genetic risk, having a better diet reduced the likelihood of developing dementia. Although more research is needed in this area, this strengthens the public health message that we can all help to reduce our risk of dementia by eating a more Mediterranean-like diet."

The authors caution that their analysis is limited to individuals who self-reported their ethnic background as white, British or Irish, as genetic data was only available based on European ancestry, and that further research is needed in a range of populations to determine the potential benefit.

They conclude that, based on their data, a Mediterranean diet that has a high intake of healthy plant-based foods may be an important intervention to incorporate into future strategies to reduce dementia risk.

Dr Janice Ranson, Senior Research Fellow at the University of Exeter and joint lead author on the paper, went on: "The findings from this large population-based study underscore the long-term brain health benefits of consuming a Mediterranean diet, which is rich in fruits, vegetables, whole grains, and healthy fats. The protective effect of this diet against dementia was evident regardless of a person's genetic risk, and so this is likely to be a beneficial lifestyle choice for people looking to make healthy dietary choices and reduce their risk of dementia."

"Future dementia prevention efforts could go beyond generic healthy diet advice and focus on supporting people to increase consumption of specific foods and nutrients that are essential for brain health."

Study launched to explore food insecurity in obese people

A new research study has been announced to explore the food shopping experiences of people who are struggling with their weight and living on a low income.

Researchers from Robert Gordon University (RGU) specifically want to speak to anyone living with obesity or who is looking to lose weight, who may be struggling to put food on the table or has done so in the past.

The research forms part of the wider, multi-disciplinary, Food Insecurity in People Living with Obesity project (FIO Food), that also includes academics from the University of Aberdeen, Leeds Beckett University, Liverpool University and University College London, which are exploring health inequalities in the UK.

RGU's research team hope to gather evidence to inform public policy through a series of one-to-one interviews and focus groups, so that we can better understand how to support people living with obesity and food insecurity.

Scottish Health Survey data shows the people living in the most deprived circumstances in Scotland are more likely to be overweight and obese than people living in more affluent circumstances. The Food Foundation has also shown that people living on the poorest households in the UK would have to spend 40 per cent of the household income to buy the food needed to meet Government dietary recommendations, compared to the wealthiest households, who would only have

to spend seven per cent of their income to buy the same. Therefore, poorer households are compromised in their ability to buy a healthy, balanced diet, as nutritionally poor and high energy density foods are often cheaper and readily available.

Professor Flora Douglas explained: "We are currently facing a perfect storm in the UK with the cost-of-living crisis driving up the numbers of people living with food insecurity in the UK. It's currently estimated that 18 per cent of households (9.3m adults) experienced food insecurity in January 2023 – which is more than double the levels seen in January 2022. We know that people living in economically disadvantaged circumstances are more likely to be living with obesity than people who are better off."

"We know that many people face food insecurity and cannot access enough affordable, nutritious food and our aim with this research is to make food shopping more accessible and to break down barriers in the retail environment that prevent people making healthy choices. The study supports RGU's overall commitment to research to make a positive impact on people's quality of life."

As part of the study, the research team is inviting people aged 16 and over to take part in a short 30-40-minute interview or group discussion to share their experiences of shopping for food while living on a low income or a very restricted food budget.

The study is funded by the Biotechnology and Biological Sciences Research Council (BBSRC), Strategic Priorities Fund (SPF) and has been reviewed by the Robert Gordon University School Ethics Review Panel (SERP).



New to market

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



GLUCOSAMINE NPD AT LAMBERTS

A new advanced glucosamine formula has been developed by Lamberts.

Glucosamine Complete is a vegan formula that combines glucosamine and Phytodroitin (a plant-origin alternative to chondroitin), enhanced with three relevant botanicals, quercetin, ginger, and rose hip extracts.

As a high-strength formula, three tablets provide 1400mg of glucosamine sulphate and 330mg of Phytodroitin, equivalent to 300mg of pure chondroitin. It also incorporates 150mg of MSM, a well-researched nutrient that is often seen as the perfect partner to glucosamine.

The product utilises GlucosaGreen, bioequivalent to traditional shellfish glucosamine, but derived from non-GMO corn by a transparent, fully traceable, and sustainable direct-fermentation process. Using a patented microorganism as a processing aid, the technology efficiently transforms glucose into glucosamine; virtually eliminating the environmental impact inherent to chitin-derived shellfish production.

Manufactured from a blend of seaweed extracts, Phytodroitin is a plant-based alternative to chondroitin, formulated with purpose-grown botanical ingredients to ensure quality, purity, and sustainability. Prior to formulation, researchers studied the mucopolysaccharide structure of chondroitin, in addition to the significance of its composition, including the role of glucuronic acid. In doing so, they were able to create Phytodroitin, containing a combination of specific mucopolysaccharide-rich algae extracts, mimicking the nutritional composition of chondroitin.



MINAMI develops range with high-strength EPA

PlusEPA is the latest addition to the MINAMI range of essential fats products.

The new supplement contains the brand's highest levels of EPA. It also features a convenient and flexible 'fish twist' shaped capsule, making it the perfect alternative way to take MINAMI. The capsule can be twisted opened and poured into food or drink for easy consumption.

This product is ideal for those in need of pure EPA and no DHA. PlusEPA provides 80 per cent ultra-pure, highly concentrated omega 3. At the same time, it has announced that PlusEPA will be the first of the MINAMI portfolio to launch in rPET plastic and it has removed the gold foil from the label, making them recyclable, yet maintaining the premium look and feel.

HELIOS EXPANDS OFFERING

A new 12-strong range of tissue salts is the latest addition to the Helios portfolio.

Helios Tissue Salts are made to the original formula and method first pioneered by Dr Wilhelm Schuessler in the 19th century after his extensive work and research. These popular tissue salts, often known as Biochemic Cell Salts, act as a support to the 12 essential minerals our bodies need to maintain balance and health.

The rang includes Calc Fluor, Calc Phos, Ferr Phos, Kali Mur, Nat Mur, and Nat Sulph, among others.



New look for Planet Paleo

A rebrand along with some new products have been announced for the Planet Paleo brand.

Living Planet Distribution has revealed that the brand of bone broth and collagen

supplements now comes in 100 per cent plastic-free home compostable packaging, in addition to some new additions to the range as well as a new look.

The packaging has moved from plastic tubs to 100 per cent home-compostable packaging, which takes 90-180 days to fully decompose. The packaging is also now presented in a modern, eye-catching design with bold graphics and colour, in addition to its original distinctive logo.

Planet Paleo has also gained two important new certifications: firstly, in the form of Halal certification for the bovine collagen range, and secondly, Marine Stewardship Council certification, which is the gold standard for fish sustainability and a testament to the company's ongoing commitment to quality.

The company has also expanded on its current Bone Broth, Bovine Collagen, and Marine Collagen lines with new products that reflect changing consumer tastes and current trends in health supplement purchasing.

IHCAN SUMMIT BECKONS

With the 2023 IHCAN Summit drawing closer, be sure you don't miss out on securing your place at this leading educational event.

June's IHCAN Summit will open eyes to the true power of nutritional medicine.

Don't miss out on the talk, How maverick doctors are shaping the future of cancer treatment, being held on June 24 at 155 Bishopsgate, London.

We don't treat cancer, but we can offer the finest personalised nutrition support for people with cancer thanks to Mary Beth Gonzalez and Professor Sarper Diler from The Nicholas Gonzalez Foundation.

It's infuriating that commercial medicine fails to acknowledge published evidence that integrative health approaches pioneered by Dr Josef Issels, Dr Max Gerson, Dr William Kelley

and Dr Nicholas Gonzalez, among others, are effective at curing people with cancer. The late Dr Gonzalez developed a protocol that succeeds to this day in bringing cancer patients – even those with pancreatic cancer – into long-term remission, and we're lucky to have two advocates from the sharp end of nutrition-based treatment to inspire us with case histories and protocols showing just how powerful 'our' methods can be.

Professor Diler, MD, PhD, CHTC, D-Hom, IO is a Certified Gonzalez Protocol Doctor and chairs the Scientific Advisory Board of the Gonzalez Foundation. He runs preclinical and clinical trials as a faculty member of Istanbul University's medical faculty.



DR TOM O'BRYAN RETURNS

The ICHAN Summit also sees the return of IHCAN fan favourite, Dr Tom O'Bryan, with his talk WHAT ARE WE MISSING? The Enigma of Holistic Diet Recommendations Reduced Symptomatology, yet (unintended) Weakened Immune System and Increased Mortality.

Dr O'Bryan is considered the 'Sherlock Holmes' for chronic disease and metabolic disorders. He is a clinician par excellence in treating chronic disease and metabolic disorders from a Functional Medicine Perspective.

He holds teaching faculty positions with the Institute for Functional Medicine and the National University of Health Sciences. He has trained and certified tens of thousands of practitioners around the world in advanced understanding of the impact of wheat sensitivity and the development of individual autoimmune diseases.

IT'S NOT JUST ABOUT THE SPEAKERS

Our events aren't just about the speakers – tickets include:

- Access to a large expo, where you can catch up with the UK's leading suppliers of professional supplement ranges and practitioner services.
- A full three-course gluten-free buffet lunch, healthy snacks and refreshments.
- A printed delegate pack with all the lecture slides.
- All the post-show video and presentation downloads.
- CPD points from BANT, the NNA and the ANP and a goody bag.
- A great opportunity to build contacts and swap ideas with other practitioners.

Tickets are limited and sold on a first-come-first-served basis. To book your place, visit ihcansummit.co.uk or telephone 01279 810080 (normal BT landline rates apply). Association member and students discounts are available.



MISSED THE EVENT?

Don't worry, you can buy the downloads, which includes all the video, presentation downloads and CPD points. Simply visit www.ihcanconferences.co.uk/downloads-2022.

For exhibiting and sponsorship opportunities at future events, email abigail.morris@targetpublishing.com



Click to book
IHCAN
Conference

BioCare – the adaptive evolution

As May 2023 marks 35 years since BioCare was founded, we caught up with Emma Ellis, Managing Director, and Marta Anhelush, Head of Clinical Nutrition, to hear more about BioCare's evolution to an integrated 'adaptive' approach to health.



The heritage at BioCare has always been to challenge and excite but it is also founded on the basis that the business cares.

Emma Ellis, Managing Director, explained: "Our story is rooted in care. It has been more than 35 years since BioCare's original founder, John Stirling, set out to seek a greater understanding of his health after a cancer diagnosis. He was striving to push the boundaries of what was possible for his own health, and keen to use his pioneering approach to help others on their journey to health too, reshaping our understanding of health and nutrition. Today, these pillars of care form much of our philosophy, being that 'we care for our customers, our environment and each other.'"

It is this pioneering attitude that is riven through the company's history and is still alive today, rooted in BioCare's understanding that health is unique, dynamic, and adaptive, and that we need intelligent solutions to meet that challenge.

Marta Anhelush, Head of Clinical Nutrition, explained: "We may have been here for 35 years, but we've never stopped challenging and pushing forwards. We're always seeking a greater understanding of health so we can continue to be the trusted experts of science and research and continue to formulate the right solutions for our customers.

"We now enter an entirely new phase as we develop a detailed understanding of the human genome and understand how each individual's physiological systems are programmed from the outset. Nutrigenomics is a game changer, a paradigm shift in knowledge."

Going further, the BioCare philosophy is around making people better, but Emma advised: "To continue to provide the very best care for customers for the next 35 years, we knew we needed a total model of health and disease that fully integrated genetic, environmental and physiological aspects."

AN ADAPTIVE HEALTH MODEL

It was several years ago that BioCare decided current healthcare models didn't fit with their vision, so designed a model to fully integrate the exciting new genetic information into a dynamic systems model and began educating practitioners and supporting them with their real-life cases, to form a case study knowledge base. Their 'Adaptive Health' model was born, providing a framework for understanding health, allowing BioCare to explore complex ideas, yet also develop simple, practical solutions for clinical practice.

Marta commented: "We had an opportunity to create a truly integrated and individualised model derived from the old and the new for now and the future. The more we looked at a nutrigenomic approach to medicine and



nutrition, the more we understood how some traditional solutions can be as relevant as they ever were. The more we studied it, the more we realised it brought us back to a model we call now call 'Adaptive Health'. For adaptation is the key functional process that underpins health and maladaptation, disease. The key to change is adaptation. It's not a new concept when you think about it. The novelty is the framing and applying it to all elements of health in a total model and with a much fuller understanding of 'predisposition' that nutrigenomics offers. Nutrigenomics gives us the excuse to re-evaluate the model."

This is based on health as a dynamic interplay between our body and the environment, partly influenced by genetics. As one thing changes or adapts, another is affected, and so on. There is no single root cause to ill-health, only a series of imbalances, between the systems, and between genetic potential and the environment. Seeking greater balance and symbiosis with our environment is the key to improving health.

While the adaptive model can be quite complex and abstract, it's designed to operate on a number of levels. It is three dimensional and can be used as a whole toolkit to evaluate a client and inform clinical decision making about key factors and where to start. Unlike a naturopathic, functional, environmental or genetic model, it is the first model to offer a total integrated approach and fully examines the interface between all.

But how does this work in practice?

Marta offered an example: "A client/customer presents with stress, anxiety, poor sleep and energy. A conversation or BioCare questionnaire perhaps highlights certain key useful elements: difficulty with relaxing, a high sugar diet with many stimulants, relationship problems, some inflammation or

allergy. The basic profiling (perhaps in store, perhaps by a non-nutritional practitioner or even self-evaluation) would highlight that the person has issues particularly in nervous and metabolism areas. Environmentally, aspects of their diet and situational/emotional aspects would be highlighted. Simple solutions can be offered at this stage to promote calming neurotransmitters, regulate blood sugar, support metabolism (B complex, Calm Complex, Gluco Complex, dietary changes, and perhaps suggesting coaching or counselling). All very familiar, simple, yet effective solutions.

"On the other hand, we might go a bit deeper into the model. If we're a nutrition practitioner, we might also highlight more specific physiological factors from the questionnaire responses that are strongly indicative of some key system dysfunctions – poor methylation, poor detoxification of stress hormones. We might therefore refine the programme by using methylating products and products to gently support detoxification. Going deeper still, if we are confident in nutrigenomic approaches, we might test and discover a *COMT* and *MTHFR* SNP and, looking at other SNPs, devise an even more tailored programme, refining the types and levels of B12, methylfolate and detoxification support.

"Thus, the adaptive model focuses us on useful cause-effect relationships in the same way that other models would, and happily, many of the solutions are the same and would be effective, up to a point. But it also allows us to have a greater understanding of what we are doing and what isn't working and then allows us to adapt our programme. And further, it allows the expert practitioner to dig really deep and create advanced programmes."

And this same model has informed the design of the extensive BioCare range of products.

Marta explained: "Precisely what is combined and how different supplements work together has to be based on this deep understanding of health and work across multiple complementary systems. 'Synergy' isn't just a buzzword to us. It really matters to creating effective nutrition solutions that resonate with the body's innate intelligence."

But why not just do nutrigenomics?

Marta responded: "Because it's only part of the picture. In pure form, it pays insufficient attention to the environment or adaptation, to the complexity of life or the physiological intelligence of the organism. Why not take a naturopathic approach? Because it can be rather global, and might not be tailored to very specific needs, may not guide us when things don't work out. Why not a functional approach? Because it perhaps doesn't give enough direction in terms of how the environmental and innate interact in terms of physiological adaptation. All these models can and do work well, of course. But they miss a small but important part. The power of

understanding adaption and harnessing that in the interests of maximising health."

Emma continued: "Our adaptive approach, our understanding of the connections between genetics, body systems and lifestyles allows us to provide a unique offering to our customers – taking the complexity of individual health needs and providing simple, effective solutions personalised to them.

"I'm excited about the future and the opportunity this approach brings. We will have new pools of knowledge to integrate with traditional knowledge and all it has to offer. This, alongside developing new tools, will support and enhance our practitioners practice and ultimately the health and wellbeing of our end consumers – which has always been our reason for being, 35 years ago and for the next 35 years and beyond."



Emma Ellis

Guidance on menopause management

The often-debilitating impact of the menopause has received much national attention recently, yet understanding of the importance of good nutrition has been somewhat lacking. Experts discuss how you can educate your clients around the nutritional interventions that can support them through the menopausal process.

For a process that is inevitable for half of the population, it seems incredible that it has taken until 2023 for true understanding and awareness to reach people's consciousness. For it is only in recent months that not only have we seen a greater number of businesses adopt more workplace menopause strategies, but we have also seen the suggestion of menopause leave, although the Government has stalled on that for now.

The reasons for this heightened awareness are many, and certainly well-known figures speaking out with candour has helped, along with a host of big names brands adding their support to the issues that can arise from the process. But what we are perhaps still lacking is greater awareness around the role that our nutritional health has on the menopause, and the impact nutrient deficiencies can have.

We know that the menopause – indeed, many areas of hormonal health – are issues that can respond hugely well to nutritional interventions, and nutritional therapists have a really important role to play in supporting clients. But what are the basics in terms of the dietary and lifestyle impacts, and the recommended protocols for your clients?

Let's start with why we are seeing so much more awareness in the UK.

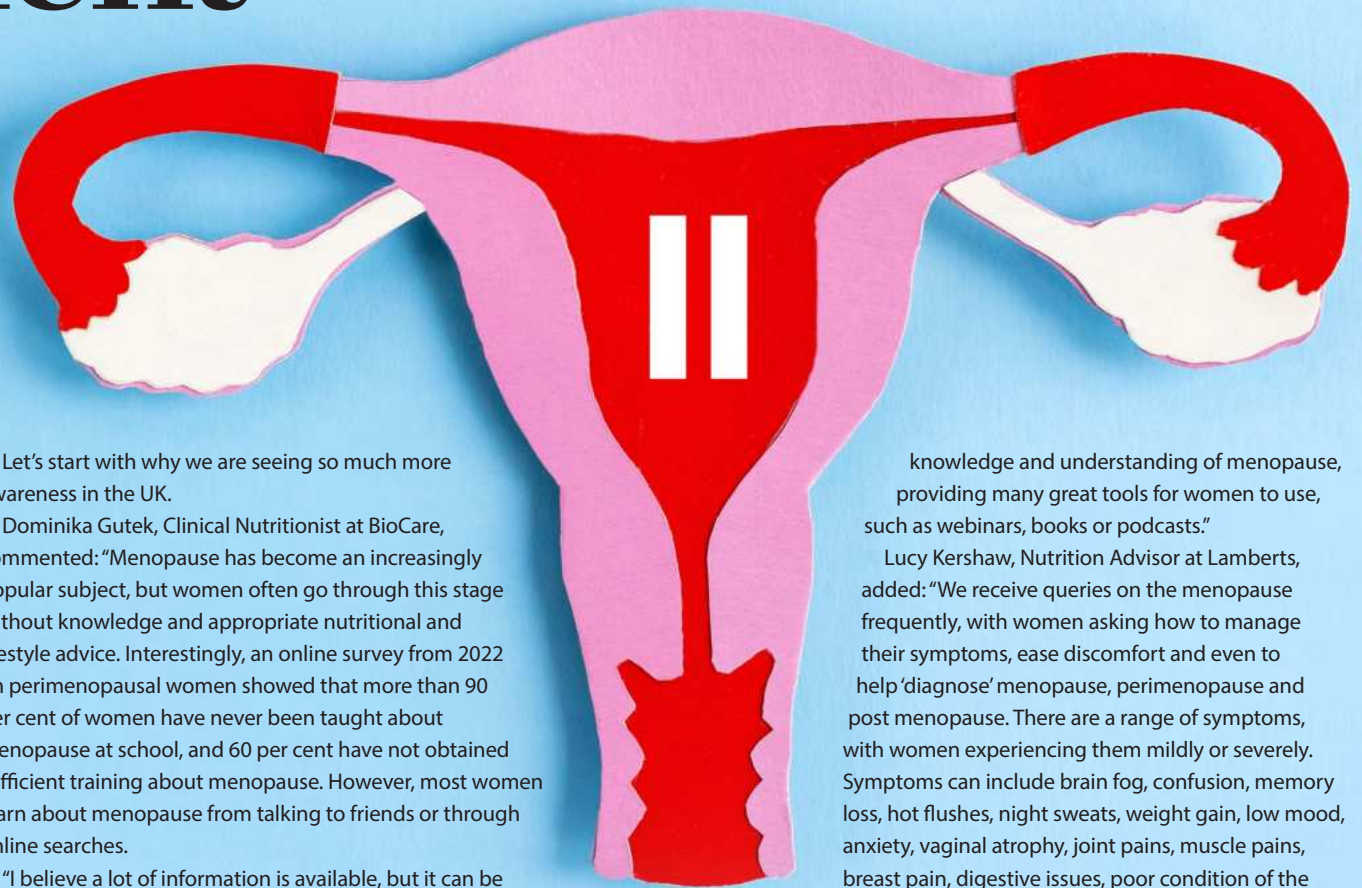
Dominika Gutek, Clinical Nutritionist at BioCare, commented: "Menopause has become an increasingly popular subject, but women often go through this stage without knowledge and appropriate nutritional and lifestyle advice. Interestingly, an online survey from 2022 on perimenopausal women showed that more than 90 per cent of women have never been taught about menopause at school, and 60 per cent have not obtained sufficient training about menopause. However, most women learn about menopause from talking to friends or through online searches.

"I believe a lot of information is available, but it can be confusing and contradictory, and even with the increasing awareness around menopause, women are still left without sufficient advice and education. Thankfully, there is an increasing number of practitioners, including Nutritional Therapists, who have excellent

knowledge and understanding of menopause, providing many great tools for women to use, such as webinars, books or podcasts."

Lucy Kershaw, Nutrition Advisor at Lamberts, added: "We receive queries on the menopause frequently, with women asking how to manage their symptoms, ease discomfort and even to help 'diagnose' menopause, perimenopause and post menopause. There are a range of symptoms, with women experiencing them mildly or severely. Symptoms can include brain fog, confusion, memory loss, hot flushes, night sweats, weight gain, low mood, anxiety, vaginal atrophy, joint pains, muscle pains, breast pain, digestive issues, poor condition of the hair and skin. The knowledge level can also vary from well informed to a complete lack of understanding of what is occurring within their own bodies.

"With more press around the menopause and breaking down the



stigma associated, we are in a better place in the UK to embrace menopause rather than seeing it as a negative change. There are comprehensive resources available on the menopause and guides on how to manage symptoms available from the NHS, private medical companies, nutritionists and supplement companies, such as Lamberts. However, some women may still be embarrassed about this stage of life or not know where the best place is to turn. Some women simply want a personalised approach, specific lifestyle changes, nutrition and supplements to suit their specific symptoms and severity of symptoms."

And Corin Sadler, Nutrition Advisor at Viridian Nutrition, pointed out: "The heightened awareness we have seen over the last few years has really highlighted the lack of information and support for women approaching and going through the menopause in general. Whilst I think this has translated into renewed interest in HRT, it perhaps hasn't focussed women on nutritional and lifestyle ways to support themselves, and an area that needs more of a push.

"More of an open dialogue around the menopause years brings greater awareness as women become increasingly conscious of the symptoms they might expect, or already suffer with, along with feeling like they no longer have to suffer in silence like their mother's generation. However increasingly stressful lives coupled with more persistent exposure to endocrine disrupting chemicals or xenoestrogens means women are perhaps experiencing more severe symptoms than before."

Helen Drake, Registered Nutritional Therapist at Cytoplan, added: "Awareness is improving, and many more women are seeking support from a nutrition and lifestyle perspective. However, in many cases, there is much more that can be useful. Also, women often experience symptoms of perimenopause in their early 40s, such as fatigue, weight gain and brain fog, but are often unaware that this may be linked to menopause. They are often then given treatments that are inappropriate, so there needs to be more awareness of these early symptoms."

And Roz Crompton, a homeopath and Trade and Operations Director at Helios Homeopathy, went on: "Menopause has been a hot topic, pardon the pun, for the last couple of years, with many celebrities talking openly about their experiences. This has helped bring awareness and education to women on symptoms they might experience throughout the stages of menopause. With the increase in awareness of the benefits to taking a more natural approach to health, there is a great deal of information available on how to support menopausal symptoms naturally and successfully without the use of

HRT. We also have access to some excellent nutritional supplements, herbal and homeopathic remedies that have been developed over the last 10 years."

But is it the case that greater numbers of women are experiencing severe symptoms, or just the fact that we are more aware of it these days?

"It may be a bit of both – modern lifestyles such as high stress and poor diet can exacerbate symptoms of menopause," Drake commented. "During menopause, we become more insulin resistant, which means we are less able to stabilise blood sugar levels. A highly refined and processed diet can exacerbate this. Also, our adrenal glands, which are responsible for our stress response, take over oestrogen production from the ovaries. Therefore, our adrenals have to work harder; if we are already stressed, this can make menopause symptoms worse."

Rosie Rayner, ND, who works in technical support at Bionutri, commented: "I think more women are experiencing severe symptoms than previously but due to the heightened awareness, I think the numbers look even greater. Menopausesupport.co.uk have done a lot of good work. From a 2022 survey, they state that 45 per cent of women haven't spoken to their GP about their menopause symptoms. Given there are 13m women in the UK in peri- or post-menopause, this is millions of women who are still unspoken. So, perhaps more women are struggling now than ever before. I would guess this is due to societal changes with stressful modern-day lifestyles and more processed foods in most people's diets."

Crompton added: "Some women can experience really distressing symptoms, but I believe this has always been the case, however, 10, 20, 30 years ago it was just not acknowledged or taken seriously, especially in the workplace."

Gutek added: "According to the NHS, most women will experience menopausal symptoms, some of which can be severe, affecting their daily quality of life. With increasing awareness around menopause, women have become more open about their symptoms, hence why the prevalence seems higher than in the past. However, our diets, lifestyles, and environment have deteriorated, leading to increased rates of chronic disease, with approximately one in three adults worldwide suffering from multiple chronic conditions. We eat more processed food, which is less nutritionally dense, leading to nutrient deficiencies; we exercise less and are exposed to environmental toxins and stress. All of these factors can trigger and exacerbate menopausal symptoms."





THE MENOPAUSE PROCESS

The term 'menopause' is often used to describe a series of processes, which culminates in the cessation of a woman's menstrual cycle.

Sadler explained: "Declining oestrogen and progesterone in response to the reduction of active follicles define perimenopause, the two to eight years before menopause itself. During this time, periods can become irregular, and women may increasingly suffer from symptoms, which are often just attributed to menopause including hot flushes. After 12 months without a period, a woman is said to have reached menopause, and from then is considered post-menopausal, after which symptoms often continue before declining.

"Hot flushes are still quite poorly understood, but thermoregulation is dysregulated. The hypothalamus, which regulates temperature control, is thought to be involved, mistakenly triggering blood vessels to dilate, which diverts heat out of the body, even when the body is not actually hot, causing the characteristic flush. Thinning of mucous membranes and atrophy of vaginal tissue often occurs as oestrogen levels decline, making intercourse painful and can sometimes lead to recurrent urinary infections."

Guttek continued: "Menopause is associated with cessation of periods due to a decline in oestrogen and progesterone when a woman's ovaries stop producing hormones. Menopause has three stages: perimenopause, menopause and post-menopause. Perimenopause is a transition to menopause related to the gradual change in ovarian function, lasting six-13 years. In this stage, levels of oestrogen fluctuate, causing a variety of symptoms. Most women become menopausal between 45-54 years, and the average age in the UK is 51."

Drake went on: "When oestrogen levels reduce, we become more insulin resistant, leading to high insulin, sugar cravings and complication such as weight gain. It can also affect cognitive function as the brain likes to run from glucose, therefore, the brain gets less energy, leading to brain fog, poor memory and concentration. The brain also possesses many oestrogen receptors. When there is a reduction in oestrogen, it directly affects the brain as it is no longer being stimulated to produce energy or maintain synaptic plasticity by oestrogen. This also affects the hypothalamus, which controls temperature regulation, so oestrogen fluctuations can lead to night sweats and hot flushes.

"Our adrenal glands, which are responsible for our stress response, take over oestrogen production from the ovaries. Therefore, our adrenals have to work harder; if we are already stressed, this can make symptoms worse. Progesterone is also decreasing, and progesterone is associated with being calm, so the drop can be associated with increased anxiety."

Let's also discuss the symptom range, which can be wide.

Daisy Skinner, Nutrition Advisor at Lamberts, explained: "Going through the menopause can certainly influence a woman's quality of life, yet it is important to consider that not every woman will feel as if the menopause has a negative effect on their quality of life. It's also important to understand the menopause can affect a woman's quality of life in different ways, such as physically, psychologically, and socially. How it affects women may depend on factors such as symptoms experienced, severity, and other factors such as access to support networks and a woman's mindset to change.

"There is research to suggest there is an association between symptoms and lower quality of life¹. Common symptoms are hot flushes, night sweats, weight gain, and more frequent urinary infections and leakage. These can induce feelings of low self-esteem and low mood, which are also cognitive symptoms that can occur with the menopause regardless. It is worth noting symptoms cannot just affect the women experiencing them, but also those close to them. For example, vaginal dryness and lower libido associated with the menopause may put strain on a relationship. Furthermore, any one symptom could cause a reduction in a woman's quality of life, yet they may be dealing with a combination of symptoms that are even harder to manage.

"The menopause also has the ability to increase a woman's risk of other long-term health issues, such as osteoporosis, caused due to the drop in oestrogen that accompanies menopause. This reduction

can increase risk for cardiovascular risk factors, such as increasing low density lipoprotein cholesterol and triglycerides, as well as increasing the risk of cardiovascular disease. Therefore, it is so important for women to understand their increased risk, whilst also understanding that there are many ways to tackle and reduce these risks."

Drake added: "The reduced levels of oestrogen (which is protective for brain, cardiovascular and bone health) can increase the risk of dementia, cardiovascular disease and osteoporosis. As menopause affects multiple aspects of the body, including the brain, the symptoms can be ill defined and quite general. However, commonly we would see hot flushes, night sweats, vaginal dryness, reduced libido, low mood, poor memory and concentration, anxiety, fatigue, poor sleep, and weight gain."

And in terms of longer-term factors, Guttek continued: "The risk for other health issues can increase depending on many factors, however, some are modifiable and might not be directly related to menopause, but instead, to nutrient deficiencies, lack of physical activity or exposure to environmental toxins, for example. Generally speaking, some health problems become more likely to manifest when oestrogen levels decline.

"Oestrogen plays a huge role in bone metabolism, hence there is an increased risk of bone conditions such as osteoporosis post-menopause. The risk of oestrogen-responsive cancers may increase with a genetic predisposition or raised oestrogen in relation to progesterone. Further, cholesterol management, heart function and inflammation can be affected, increasing risk of heart disease or stroke. Sugar intake, obesity, environmental chemicals, circadian disruption, and dysbiosis can have an effect, as the gut microbiome is a critical regulator of oestrogen in the body. Studies have shown post-menopausal women diagnosed with breast cancer had less diverse gut microbiota. Dysbiosis can initiate DNA damage, alter levels of circulating steroid hormones, alter immune function, with some studies suggesting that it can lead to carcinogenesis."

Rayner went on: "A 2022 survey from The Fawcett Society found 77 per cent of women suffer with at least one 'very difficult' symptom, 44 per cent said they found they had three or more severe symptoms, 54 per cent weren't interested in sex anymore. I would say these stats reflect just how intrusive this life-stage can be for millions of women. After menopause, due to lack of systemic oestrogen, there is increased risk of heart disease, osteoporosis, urinary tract infections (UTIs) and although more evidence is needed, some say there is a higher risk of dementia too."



RAISED RISK

Every woman will experience the menopause but why is it that severity of symptoms can vary so widely from one to another? And what are the accepted risk factors for making the process longer, and more severe?

Drake explained: "Poor blood sugar regulation and high stress can certainly exacerbate menopause symptoms. Women who have been oestrogen dominant (many have conditions such as PMS, fibroids and endometriosis) may have more extreme oestrogen fluctuations, which can also worsen symptoms."

Rayner went on: "Some lifestyle factors can make symptoms worse. Some studies have suggested that alcohol consumption and smoking can make certain symptoms worse, such as hot flushes and insomnia. Women who are overweight or obese have more severe symptoms as well. Eating processed foods, not sleeping solid hours and being overly stressed can all worsen symptoms. In the western world, we tend to eat less phytonutrient-rich foods, which can add to the worsening of hormonal imbalances."

And James Milburn, Nutrition Advice Manager at Lamberts,

advised: "Whilst menopause is a natural process, it can cause a range of symptoms, including hot flushes, weight gain, mood swings and vaginal dryness, that can significantly impact a woman's health. The severity of these symptoms can vary significantly from woman to woman."

"One of the most significant risk factors for a more severe menopause is genetics. Women who have a family history of early menopause (defined as menopause before the age of 45) are more likely to experience severe symptoms and an earlier onset of menopause themselves^[1]. Studies have identified several genes that may be associated with early menopause, including the BRCA1 and BRCA2 genes^[1]. However, the precise genetic mechanisms that underlie the risk of early menopause remain poorly understood, and further research is needed."

"Another important risk factor for a more severe menopause is lifestyle factors, such as smoking and diet. Studies have consistently shown that smoking is associated with an earlier onset of menopause and a higher risk of hot flushes and other menopausal symptoms^[2]. Women who smoke are also more likely to experience premature ovarian failure, which can lead to infertility and other health complications^[2]. In contrast, a healthy diet rich in fruits, vegetables and whole grains has been associated with a later onset of menopause and a lower risk of hot flushes and other menopausal symptoms^[3].

"Hormonal factors play a critical role in menopause. Women who have a history of irregular menstrual cycles, polycystic ovary syndrome (PCOS), or other hormonal disorders may be at increased risk of a more severe menopause^[4]. In particular, women with PCOS may experience may earlier menopause and a higher risk of more intense symptoms^[5]. In addition, women have undergone certain medical treatments, such as chemotherapy or radiation therapy, may experience a more severe menopause due to the effects of these treatments on the ovaries and hormonal balance^[5]. Finally, psychological factors, such as stress and anxiety, may also contribute to a more severe menopause. Women who experience high levels of stress or anxiety are more likely to report severe menopausal symptoms^[6]."

He went on: "In conclusion, there are several risk factors that may contribute to why one woman might suffer from a more severe menopause compared to another. These include genetic factors, lifestyle factors, hormonal factors, and psychological factors. While some of these risk factors are beyond one's control, others, such as smoking and diet, can be modified to reduce the risk of a more severe menopause. Health professionals can help women identify their individual risk factors and provide tailored recommendations to reduce the impact of menopausal symptoms on their quality of life."



NUTRITION PROTOCOL

So, from a nutritional therapist viewpoint, what is the best approach you could consider in terms of diet and lifestyle to support clients through the process?

Focusing on diet, Drake recommended: "Increase phytoestrogen foods, such as olives, lentils, flax seeds, edamame beans and miso. These have a mild oestrogenic effect and therefore may help to reduce symptoms of menopause and also support bone density as oestrogen helps to maintain bone density. Sage tea has been shown to be useful too. Eat half a plate of vegetables with both lunch and supper – aim for at least six portions (even better is eight) per day. Include a wide variety of vegetables and colours over the week. Make sure you include at least one portion of dark green leafy vegetables each day. Vegetables are anti-inflammatory and a good source of fibre to help add bulk to the stool and regulate bowel movement. Try to include a wider variety of fresh vegetables, which can be higher in fibre and phytonutrients.

"Eat protein with every meal – protein slows down the release of glucose into the blood so helps to stabilise blood sugar levels, which in turn helps to reduce inflammation and oxidation, for example, fish, eggs, seeds, legumes, houmous, quinoa. Eat one to two portions of fruit. Choose berries or apples as both are lower in sugar. Berries are rich in antioxidants (frozen berries, for example, blueberries or raspberries are OK). Avoid dried fruit, which is high in sugar. Baked apple with skin (no sugar) can support healthy gut function. Avoid bananas as they are high in sugar.

"Enjoy healthy fats found in avocado, nuts (not peanuts or salted/roasted), seeds (pumpkin and sunflower – ground), olive oil, oily fish. Eat three to four portions of healthy fats per day – a portion is a tablespoon of ground seeds or nuts, 15ml of olive oil, a portion of oily fish, half avocado. Choose wild fish, for example, wild salmon, sardines rather than large fish, which can be high in mercury. Omega 3 fats in oily fish are important for reducing inflammation. Cook with oils such as olive oil (for light frying) or coconut oil, avoid sunflower and vegetable oils as these are high in omega 6 and can contribute to inflammation."

Gutek went on: "A Nutritional Therapist should approach each person individually, as 'one size does not fit all', making appropriate personalised recommendations. Looking at the whole picture and potential triggers is essential, rather than focusing only on specific symptoms. I think it is crucial to educate the client that

menopause is just a stage of life, not a disease, and each woman goes through it – menopause doesn't have to be related to worse quality of life! It can be a beautiful and calm stage, with all of the wisdom gathered through life, and most of the symptoms can be supported by proper dietary and lifestyle recommendations, some of which include acupuncture, aerobic exercise, and yoga may help reduce headaches and vasomotor symptoms associated with menopause."

And Sadler suggested: "In terms of a general approach, the Mediterranean diet has been studied and shown to improve the vasomotor symptoms of menopause, but also to help keep a healthy weight. Oily fish and healthy fats, wholegrains, plenty of vegetables, fruit and fresh, unprocessed foods are key. Research suggests phytoestrogen foods may help to reduce menopause symptoms including hot flushes and night sweats. These naturally occurring plant compounds are weakly oestrogenic and thought to help stimulate oestrogen receptors as production of oestrogen drops. So, regularly including flax seeds, soya, especially fermented sources like tempeh and natto, pulses, especially chickpeas and lentils, celery, green beans, cruciferous vegetables (broccoli, kale, greens, and cauliflower) and wholegrains is a good idea. Latest research also suggests they have neuroprotective effects, so may be helpful for brain fog too.

"Balanced blood sugar levels may also help manage hot flushes. This supports the adrenal glands, helping keep anxiety and stress levels in check, but is also key for maintaining a healthy weight. Cutting out or reducing sugary foods and drinks is key here, but reducing caffeine can also be helpful. Alcohol, spicy and hot foods are all known triggers for hot flushes so these might need to be addressed for the individual. Keeping a healthy gut microbiome might also be helpful, playing a role in metabolism, weight, appetite, mood and anxiety so adding in live yoghurt and kefir to the diet is beneficial."

Lifestyle shifts too should be recommended.

"Its import to consider different types of exercise. Gentle exercise is good to help improve mood and reduce stress. Walking is a good way to do this but yoga and, T'ai chi can be really beneficial too," Sadler advised. "More weight bearing exercise is beneficial for bone health, whilst more strenuous exercise is helpful for cardiovascular health. Also just making time for yourself is really vital, whether that's medication, a relaxing bath or reading a good book."

HOMEOPATHIC CHOICE

Alongside a nutritional protocol, homeopathy is another area you could keep in mind to support female clients at this time.

Crompton explained: "Homeopathy is a gentle, safe and effective system of complementary medicine suitable for anyone. It is holistic in that it can treat the whole person on both the physical and emotional level and works by stimulating the body's own healing ability. Homeopathy has no known side effects and is safe to use alongside nutritional and herbal supplements and conventional medicine too.

"For complete support through the menopause, I recommend a consultation with a qualified homeopath, who will look at all the symptoms in a holistic way to find the most appropriate remedy or remedies to relieve symptoms. Some common remedies that can be used at home include:

- **Sepia 30c:** This remedy can be helpful if periods are sometimes late and scanty, but heavy and flooding at other times. Pelvic organs can feel weak and sagging and there can be a bearing down sensation. Sudden hot flushes with weakness and lots of perspiration. Women who need this remedy usually feel fatigued and weary, with an irritable detachment regarding family members, and loss of libido.
- **Pulsatilla 30c:** Women who might need this remedy are usually gentle and emotional, with changeable moods and a tendency toward tears. Periods are often irregular, and can come with queasy feelings, alternating heat and chills, and lack of thirst. Symptoms are worse for being in a stuffy room and much better for open air.
- **Lachesis 30c:** This remedy is indicated if a woman is suffering with hot flashes, headaches and even fainting. The menstrual bleed is dark and scanty with less flow and more pain. There can be a lot of discharge and heightened sexual desire.
- **Pulsatilla 30c:** Women needing this remedy are of a gentle and mild disposition, who are emotional and easily moved to laughter or tears. Moods are changeable, they can cry at every little thing and love to be comforted. Periods can be irregular and painful, and sleep disturbed because of hot flushes and anxious thoughts.
- **Avena sativa, Coffea, Passiflora and Valerian:** This combination remedy can relieve all manner of sleep disturbances, whether difficulty getting off to sleep or frequent waking during the night.
- **Aconite, Arg nit, Arsenicum 30c:** This combination can relieve feelings of fearfulness and anxiety, such as going out, a forthcoming event or lack of confidence when having to perform tasks such as public speaking etc."



BOOSTING NUTRIENT INTAKES

There are many different supplements that could be recommended, depending on the symptom range, and potentially after testing of certain nutrient levels.

In terms of general advice around supplements, Rayner recommended: "Liver supportive ingredients include choline, turmeric, dandelion, artichoke (among others) to aid detoxification. With excess oestrogen, symptoms such as heavier periods, PMS, bloating and sore breasts, phytoestrogens can be very supportive. SDG lignans provide a highly bioavailable source of phytoestrogens, in which studies have shown to help to balance oestrogen. Coupled with red clover, it can provide instant help to many women.

"Magnesium is also worth mentioning with its myriad of biochemical

uses in the body. During perimenopause, post menopause, as well as during times of stress, demands for magnesium increases. It can aid sleep, mood, heart and bone health – all things which need support during this life-stage. Many women will notice significant positive effects from taking magnesium pre and post-menopause."

And Drake added: "It is important to support the health of the digestive system as it is responsible for maintaining a healthy balance of hormones by the excretion of oestrogen and therefore hormone regulation. Therefore, a live bacteria supplement is important. I would recommend those containing *L. helveticus*, which has been shown to support the female genito-urinary tract.

"It is also a good idea to support adrenal function, as our adrenal glands are responsible for our stress response and take over oestrogen

production from the ovaries. Stress hormones also have an effect on oestrogen balance and if the adrenals are struggling, we can also see symptoms of menopause increase. The adrenals also help our energy levels as when they are not functioning well, we can often feel tired and lethargic, as they are involved in helping us to feel awake. I would recommend ashwagandha, which is an adaptogenic herb and can help modulate the stress response."

Meanwhile, Kershaw suggested: "Regardless of symptoms, it is important for every woman to consider a multivitamin and/or a bone health supplement at this stage of life. Going through the menopause results in a sharp drop in oestrogen, which in turn causes more bone resorption than formation. Bone resorption is the breakdown of bone tissue, causing calcium to be released into the blood rather than remaining in the bone. Because of low bone mineral density, women are at high risk of osteoporosis 10-15 years after the menopause. The risk for men at the same age is lower, but as they age the risk factor for osteoporosis becomes higher. Ageing also results in a decline in bone mineral density.

"A multivitamin containing relevant levels of calcium, magnesium, vitamin D3 and K2 is useful for maintenance of bone density. However, it is not always possible for a multivitamin to contain all these components at significant levels. Look for those containing 500mg of calcium, 250mg of magnesium, 10mcg of vitamin D3, 75mcg of vitamin K2 and 10mg of vitamin B6. If these levels cannot be found in a multivitamin, then these levels can be taken as separate supplements.

"Magnesium activates a particular hormone, which aids retention of bone structure pulls calcium out of the blood into the bones. K2 activates certain proteins, which assist the building of bones, as well as preventing calcium being deposited in other areas of the body. Vitamin D3 stimulates the absorption of calcium and phosphorus.

"Looking for relevant levels of the B vitamins within a multivitamin is key (or separately as a B vitamin complex), as they are required for the reduction of tiredness and fatigue, psychological function and normal mental performance. Many women are affected by extreme tiredness, as well as brain fog, confusion and problems with memory. Vitamin B5, or pantothenic acid, is for normal mental performance. Biotin, folic acid and B12 are needed for normal psychological function. Iodine and zinc are also important for normal cognitive function. Vitamin B6 has an essential role for hormone regulation which is particularly critical during perimenopause and menopause."

She continued: "We recommend looking for the following levels of nutrients within a supplement for optimum benefit for cognitive,

neurological, psychological function and hormone regulation. These are strengths often found in multivitamins:

- Vitamin B6: 8-10mg
- Vitamin B5: 10-50mg
- Biotin: 100-150mcg
- Folic acid: 200-400mcg.
- Vitamin B12: 50-100mcg
- Iodine: 150mcg
- Zinc: 10-15mg.

"Along with the B vitamins and iodine, omega 3 supplements are taken regularly for brain health by many people over the age of 50; 250mg of DHA contributes to the maintenance of brain function. Most omega 3 supplements state the amounts of EPA and DHA on their labels. This is particularly crucial for those who are vegan, vegetarian or who do not eat much oily fish in their diets. Glucosamine can make up a part of the cartilage found in the joints. It is taken for wear and tear within the joints, which can help with mobility and general aches and pains in the menopause.

"It is common for women to also experience anxiety and low mood. The reduction of oestrogen, combined with taking on the physical changes, can affect mental health. 5HTP is commonly taken for anxiety and sleep issues. It can affect serotonin levels in the body, which can be converted to melatonin. L-theanine and lemon balm is a combination often used to help promote calm and relaxation. They are thought to inhibit the breakdown of serotonin, allowing it to stay available in the system longer.

"In response to the drop in oestrogen, the body releases increased quantities of other hormones, which affect the body's homeostasis. Soya isoflavones and sage are supplements commonly used to combat hot flushes and night sweats. They are both thought to mimic the structure of oestrogen in the body, therefore, reducing certain menopause symptoms. There is also evidence that vitamin E can also impact vasomotor symptoms. Vaginal atrophy (also known as vaginal dryness) is another common symptom of perimenopause and the menopause, perhaps less well discussed. It is caused by the reduced level of oestrogen. Sea buckthorn berry oil, omega 7, can provide support to the wet tissue areas of the body, including the vagina. There are studies to suggest that this supplement can improve the integrity of the walls of the vagina, in turn, providing relief from discomfort.

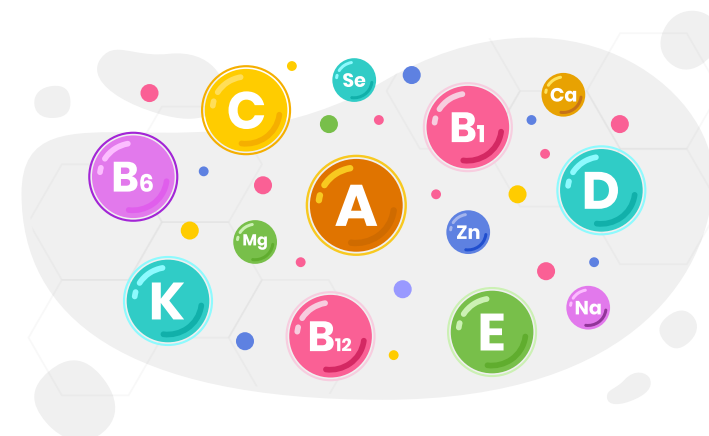
"The changes in oestrogen and progesterone levels can result in breast pain for some women during the menopause. Prolactin level can impact the level of breast pain a woman might experience. Starflower

and evening primrose oil are thought to help reduce these symptoms as the omega 6 fatty acids contained within them can influence prolactin level. Omega 6 may also help to reduce inflammatory compounds in the body, potentially having an impact on pain."

Gutek added: "In post-menopausal women, the levels of collagen decrease by two per cent each year, and we can see a decrease in skin thickness by 13 per cent. Therefore, supplementing with collagen, ideally, a well-absorbed type I collagen, alongside vitamin C (which can further promote collagen production), phytoestrogens, and essential fatty acids (omega 3) can improve overall skin appearance. There is also a higher need for supporting bone density after menopause. Therefore, I would recommend increasing your intake of vitamin D3, K2, calcium, magnesium, and boron to help to maintain bone density."

Meanwhile, Sadler recommended: "Humulus lupulus or hops has been shown to be beneficial for improvements in general menopausal symptoms but is also phytoestrogenic. Sage has similarly beneficial effects. Saffron can be beneficial for menopausal related mood swings, anxiety and poor sleep, but research shows it is also helpful in reducing hot flushes.

"Melissa or Lemon balm has long been used to help improve mood, anxiety and sleep and therefore especially suited to women going through the menopause. Maca can be really helpful, its adaptogenic properties supporting the adrenal glands, and has also been shown to reduce frequency and severity of hot flushes and night sweats. It can also be helpful for dealing with low libido and low mood. Brahmi or Bacopa monnieri might also be really useful for women experiencing brain fog. Research shows it improves cognition and memory but is also good for reducing anxiety and improving mood."



RAISE THE BAR WITH WELEDA'S NEW SHOWER BAR RANGE

Introducing the NEW Weleda Shower Bars, available in four cleverly composed fragrances, Ginger & Petitgrain, Ylang Ylang & Iris, Geranium & Litsea Cubeba and Lavender & Vetiver, all designed by Weleda's skilled in-house perfumers to elevate the shower experience. This NATRUE-certified range is made from 100% plant-based ingredients and are vegan and biodegradable and include pure essential oils, as well as organic shea butter and plant-based glycerin to soften and pamper the skin. Each Weleda Shower Bar is plastic-free - both formulation and packaging - and the recyclable cardboard is made from at least 55% recycled fibres.
weleda.co.uk



PRENATAL NUTRIENTS - MULTIVITAMIN AND MINERAL COMPLEX FOR PREGNANCY AND LACTATION



NEW PRODUCT

Nutrient support for women of childbearing age, pregnant women and lactating women: • Provides essential vitamins, minerals and nutrients based on scientific recommendations for pregnancy • Convenient and easy to take vegetarian capsules • Featuring iron as well absorbed and tolerated iron glycinate • Includes 100 mg of choline which contributes to normal homocysteine metabolism • With folate as both folic acid and 5-methyltetrahydrofolate (5-MTHF), the universally metabolised and biologically active form of folate • Folate contributes to maternal tissue growth during pregnancy • Iodine contributes to the normal production of thyroid hormones and normal thyroid function • Vitamins B1, B3, and B6 contribute to normal functioning of the nervous system • Folate, vitamin B5 and B12 contribute to the reduction of tiredness and fatigue. Website: <https://pure-encapsulations.co.uk/product/prenatal-nutrients/>

NEW & IMPROVED POLYZYME

Now with much stronger levels of enzymes for better effectiveness & added enzymes for comprehensive support. Polyzyme combines bromelain, lipase, proteases, glucoamylase, lactase, and amylase along with cellulase and xylanase which break down fibre, and phytase which neutralises phytates - compounds found in grains, nuts and seeds, and legumes that can block nutrient absorption. One of the most powerful and comprehensive enzyme complexes available, providing 13 different enzymes with distinct roles at a potent dose in each capsule.

Website: <https://www.biocare.co.uk/polyzyme>



Glucosamine Complete

Same best-selling formulation but
new **Vegan**-friendly raw materials

With
GlucosaGreen and
Phytodroitin™



With GlucosaGreen® - the world's first commercially available glucosamine produced by a direct-fermentation process.

Bioequivalent to the glucosamine derived from shellfish, GlucosaGreen® offers a vegan friendly product with minimal environmental impact.

Plus Phytodroitin™ - a plant-origin alternative to chondroitin, manufactured from a blend of seaweed extracts.

MSM, quercetin, ginger and rose hip extracts complete our formula.



LAMBERTS®
THE PROFESSIONAL RANGE



Produced in modern and
technologically advanced facilities



Manufactured and
tested in the UK

01892 554312 | www.lambertshealthcare.co.uk

Join the Lamberts Practitioner Group



CHANGING THE GAME FOR LYME PATIENTS



Nutrition I-Mag catches up with Nutritional Therapist, Ruth Etches, to discover how she effectively uses the Rio Health Support Program (RHSP) to support clients with Lyme disease.

Q How long have you been in practice and where?

I qualified as a Nutritional Therapist in autumn 2019 and began practising in December 2019. I live in rural Cornwall and initially had an in-person clinic in Truro, but this was short-lived as no sooner had I set up than the first lockdown hit and forced me to take my services online. In hindsight, this was the best thing that could have happened as it enabled me to grow my clinic and client base quicker by seeing clients from all over the UK.

Q What is your main modality?

I work with a broad range of conditions and a wide range of ages, from two to 92! I specialise mostly in autoimmune disease and chronic complex conditions, including Chronic Fatigue Syndrome, Lyme disease, environmental illness and, more recently, Long Covid. I run a Long Covid support group in conjunction with another practitioner and have put together a program to support people especially suffering the neurological and cognitive symptoms induced by Covid. The initial results have been

very promising. I have a special interest in brain health and have undertaken additional training in neuroinflammation via the Kharrazian Institute and the Bredesen Practitioner training. I am especially interested in neurological autoimmunity – something I see a lot in my Lyme clients.

My biggest passion is in doing the detective work and connecting the dots in these complex cases. I see a lot of clients that have fallen through the cracks of the conventional medical system and hit rock bottom – or even worse are told their illness is all in their head. My goal is for my clients to feel empowered and educated after our first session together – and to have a clear roadmap of what our journey together will look like – unpeeling the onion layer by layer and beginning by building solid foundations through diet and lifestyle interventions.

Q How long have you been using the RHSP?

I began using the Rio Health Support Program (RHSP) for Lyme disease soon after it launched last year. I was fortunate enough to be able to trial it with one of my Lyme clients. Prior to using the RHSP, I was using a range of different products for Lyme clients – often a combination, but drawing on the Cowden, Buhner, Klinghardt protocols, depending on my client's presentation and needs. I was drawn to the RHSP for its ease of use initially, especially as Lyme protocols are inevitably broad-spectrum and complex, requiring a multi-pronged approach.

When I began looking into the RHSP, I could see it had been very carefully put together, based on existing knowledge and protocols, but in such a way that made it much easier for the client from a compliance point of view, not to mention ease of use for the practitioner. The RHSP protocol is incredibly well thought out and is organised into stages, each consisting of a box of products taken rotationally for a certain period of time, one building on the

next. There are six boxes in total and each is taken for either 30 or 45 days. Additionally, there is a pre-RHSP box to support drainage channels and cleansing and post-RHSP box toward maintenance. The boxes are provided according to adult weight. Full and detailed dosing instructions are available to the practitioner to download and tailor according to client needs. The products are multi-faceted and include antimicrobials, biofilm disruptors, immune support, detox support. Where necessary, the products are carefully titrated to avoid any risk of herxheimer reaction.

Q What difference does it make to your practice?

The RHSP has been a game changer for working with my Lyme clients. The boxes of products provide a very comprehensive program of products, which are taken rotationally and can then be further tailored to the individual as needed. Rose Holmes, Rio's Education and Training Manager, has been incredibly helpful and knowledgeable about the products and boxes and is quick to respond to any questions or to advise when needed.

Q How do clients feel about it?

I have received incredibly positive feedback from my clients on the RHSP. In particular, they have commented on symptom improvement, the comprehensive nature of the program, the clear progression through the structured boxes and detailed instructions, and the ease of use. Cost is obviously often a concern when beginning a complex Lyme program, so they have appreciated the transparency of cost too. In particular, my clients have been grateful for the broad-spectrum effect of the combination of products contained within the RHSP and how they work synergistically to calm symptoms whilst supporting the immune system and detoxification pathways. **Continued ►**



Case study

► A complex case of mould illness, Long Covid and Lyme disease working in unison to systematically suppress the immune system in a male, aged 34.

C's presenting symptoms included severe fatigue, brainstem headaches, brain fog, MCAS, POTS, severe GERD, diffuse body pain – muscle and joint, PTSD with neuropsychiatric symptoms.

C was a highly motivated and knowledgeable client and had been working with a number of practitioners – including a Cardiologist specialising in POTS, a Lyme-literate doctor and an Endocrinologist. He was also under the care of Napiers, in Edinburgh, for Lyme. Despite this, his improvements over the previous 12 months had only been slight and he was looking for a holistic and joined-up approach to complement the other work he was doing.

Whilst the full approach was multi-layered (and needed to work alongside antibiotics and other medications), the RHSP was an incredibly valuable and important part of my approach to support C and to address Lyme and co-infections whilst supporting his immune system and detoxification pathways.

C began the RHSP in June 2022, and is currently nearing the end of the six boxes. He expects to be repeating boxes five and six before moving onto the post-RHSP program as he titrates off antibiotics with the support of his Lyme doctor. He has been very pleased with the progress made, noting in particular the broad-spectrum effect of the careful combination of herbal products.

Symptom improvements have included:

- Significant reduction in frequency and severity of headaches.
- Significant improvement in energy and cognitive function.
- Much less 'reactive'.

■ Significant reduction in post exertional malaise.

■ Better emotional stability.

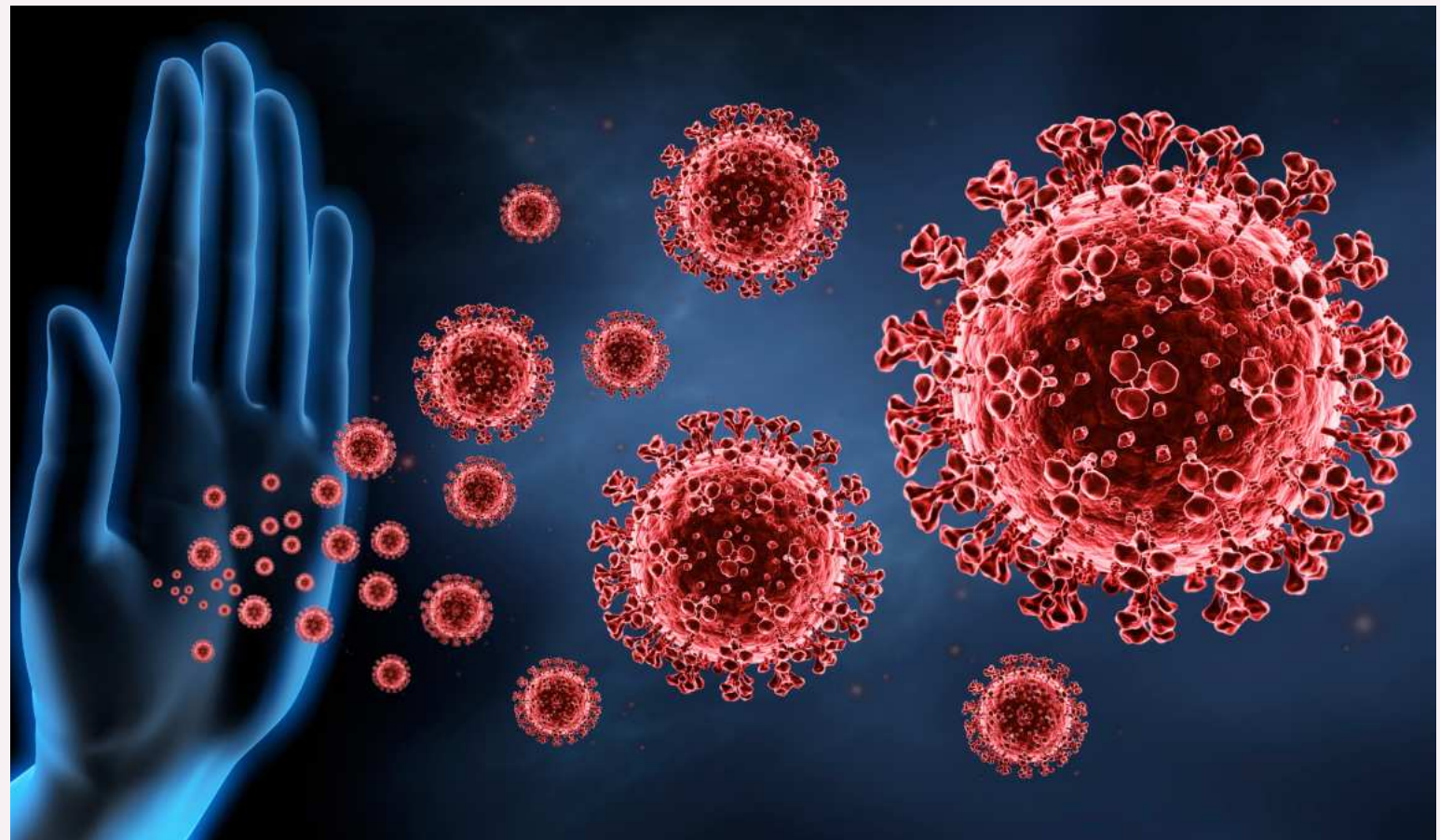
C is now able to work three days per week and walks 10,000-17,000 steps per day. He was very happy to be able to be well enough to travel home to the USA over Christmas for the first time in three years – and with no ensuing 'crash' or flare-up of symptoms that he was

anticipating.

There is still a long journey ahead, but in C's words:

"I want to stress how helpful – and surprisingly so – the RHSP has been in calming down my reactions to mould, toxins, environmental pollutants, chemicals, dust, etc. Mould-related illnesses and Lyme aren't just great imitators of other plausible conditions, they imitate each other. I

believe Lyme disease and Long Covid instructed pathways for dysregulation that then led to mould illness and MCS. This harks back to the importance of broad-spectrum therapy and not just focusing on anti-spirochetal medicine. Biofilm disruption, endothelial support, rebuilding diverse biomes, immune regulation, and so forth, must be considered."





10%OFF*

Use your Code **RHT10**

Nature provides. We share.

The Rio Health range, is a range of 26 tinctures of mainly South American botanicals.

Each is provided in a glass bottle with dropper for easy dispensing.

Most of the plants are grown in Peru where they are ecologically wildcrafted.

Unlike tablets and capsules which need to be broken down by the digestive system, tinctures absorb readily by the body. No excipients are needed so each tincture contains only water, alcohol and the botanical ingredient(s). Tinctures also readily permit easy titration (increasing of dose slowly upward), which is an important consideration for adults and children alike.

Become a Rio Health Practitioner! Be the first to try our new products! Benefit from Exclusive discounts, Specialist training, advice & guidance, Online & offline education, Welcome gift of choice...
www.riohealthpractitioners.co.uk



Rio
Health
Products

For more product information: info@riohealth.co.uk | www.riohealth.co.uk

*RRP (for consumers) and for registered practitioners (extra 10% off usual practitioner price) via practitioner website



10%OFF*

Use your Code **RHSP10**

THE NEW RHSP Rio Health Support Program

The Rio Health Support Program (RHSP) uses a variety of products that are taken rotationally and should be used in the pattern described in the accompanying booklet (sent with Box 1).

It is highly recommended to use the RHSP under the guidance of a qualified healthcare practitioner who can personalise the program to the client.

The RHSP is provided as boxed products to cover set periods of time that fit with the scheduling pattern of the program. The RHSP is available in 4 Bands with dosing according to adult weight.

Free webinar about Lyme and RHSP available on the practitioner website:

<https://riohealthpractitioners.co.uk/blogs/webinars/webinar-botanical-support-for-lyme-disease-and-co-infections> for registered practitioners.



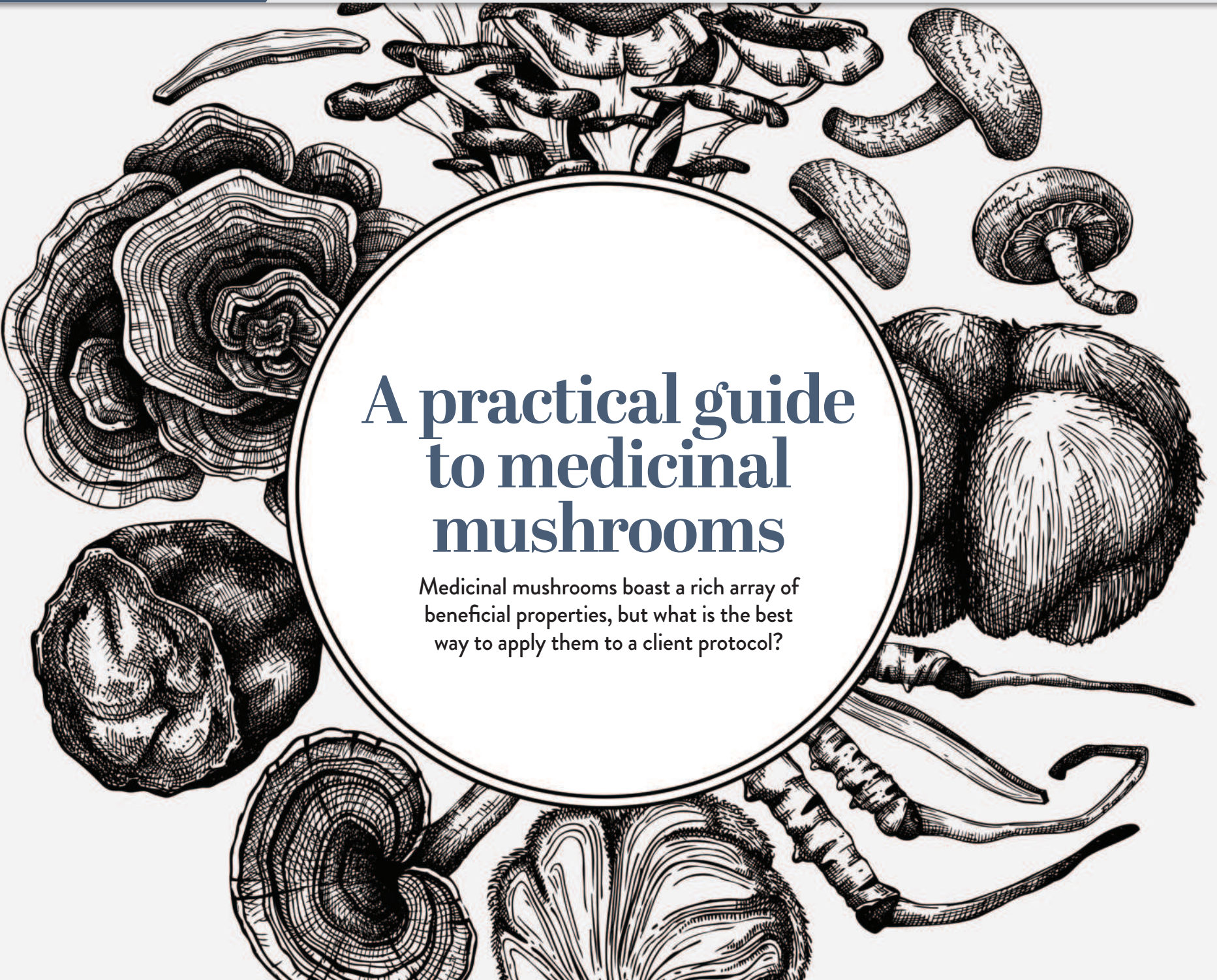
Become a Rio Health Practitioner! Be the first to try our new products! Benefit from Exclusive discounts, Specialist training, advice & guidance, Online & offline education, Welcome gift of choice...
www.riohealthpractitioners.co.uk



Rio
Health
Products

For more product information: info@riohealth.co.uk | www.riohealth.co.uk

*RRP (for consumers) and for registered practitioners (extra 10% off usual practitioner price) via practitioner website

A detailed black and white line drawing of various medicinal mushrooms, including Reishi, Cordyceps, and others, arranged in a circular pattern around the central text.

A practical guide to medicinal mushrooms

Medicinal mushrooms boast a rich array of beneficial properties, but what is the best way to apply them to a client protocol?



The popularity of medicinal mushroom products has grown exponentially in recent years, meaning now we are seeing many brands enter the market with all kinds of fashionable and faddy products. While this demonstrates the beneficial effects of medicinal mushrooms, such products can mean diluted quality and less than effective.

What we need to bear in mind here is what actually constitutes a medicinal mushroom product, and the recommendations you should be making to clients in terms of choosing an effective and reputable supplement. And then we need to consider the specifics in terms of what mushrooms offer the greatest benefits.

Addressing the reasons why we have seen such heightened interest in medicinal mushrooms, Sophie Barrett, a Medical Herbalist and Mycotherapy Adviser at Hifas da Terra, commented: "There is huge demand for adaptogenic nutraceuticals as stress and anxiety have increased exponentially in the wake of the pandemic, with many more people suffering from sleep issues and disturbances, as well as health challenges such as long Covid.

"Medicinal mushrooms can be very useful allies in these areas, regulating the stress response, sleep cycles and reducing stress and anxiety. There is a lot of new research into medicinal mushrooms for their anti-viral qualities particularly since the Covid pandemic. Both reishi (*Ganoderma lucidum*) and cordyceps (*Cordyceps sinensis*) have been studied for the complementary management of symptoms associated with SARS-COV-2 infection (viral replication, inflammation, haematological alterations) and post Covid syndrome (tiredness, fatigue, insomnia, stress, etc.) with good results. (Jan JT et al., 2021, Rahman et al. 2021)."

She continued: "There is an increased interest in wellness related food products and an alternative/preventative approach as people turn more to

self-reliance, self-care and prevention. In the UK particularly, we all know how hard it can be to get a GP appointment and I think many of the younger generation are taking more responsibility for their health and medicinal mushrooms are a fantastic way to increase resilience both mentally and physically. There is also now more emphasis on the health of the microbiome in relation to immunity and people are now beginning to understand the positive effect of medicinal mushrooms as prebiotics and their positive impact on gut health and immunity.

"And finally, we have seen a huge interest from the biohacking community for pure quality extracts of medicinal mushrooms. Medicinal mushrooms are considered exceptional for biohacking because they help reverse ageing, are useful in longevity and improving quality of life, they are anti-inflammatory, antioxidant and stress reducing, as well as being beneficial for sleep. They help enrich our microbiota because of their prebiotic qualities and have a positive effect on our immune system, not to mention they are also mood boosting with several neurological enhancing functions."

Alice Bradshaw, Head of Nutrition Education and Information at Terranova, added: "As more people are looking for natural solutions to health issues, the recognition of mushrooms has increased. The versatility of these supplements, coupled with the increasing amount of research, make mushrooms a popular addition to their diets. Mushrooms can be taken as capsules or added to coffee, smoothies and multiple other recipes. Many people do, however, choose supplements as they are easy and convenient and the daily dosage is already calculated.

"There are various mushrooms that are researched for their medicinal properties. Some people may choose a combination product for general immune support or health enhancement."



MUSHROOM SCIENCE

Let's first discuss what actually constitutes a medicinal mushroom product, and the general properties that make it beneficial to health.

Barrett explained: "There are many benefits as medicinal mushrooms are adaptogens, immunomodulators with many therapeutic actions: they are prebiotics, anti-viral, anti-stress, anti-inflammatory, anti-cancer, anti-microbial – the list goes on, as well as being functional foods containing vitamins, minerals, polyphenols, ergosterol, statins and of utmost importance, they contain beta-glucans.

"Medicinal mushrooms are important sources of bioactive compounds, a key one being beta-glucans that act as biological response modifiers, meaning they maintain homeostasis in the body and are classed as adaptogens. As a result of these properties, medicinal mushrooms promote health in several different ways and are a very bioavailable medicine, having anti-inflammatory, cardiovascular, anti-microbial and immune supporting benefits among others. Different cultures around the world have incorporated medicinal mushrooms into their healing practices for centuries and modern-day scientific research supports this.

"From a gastrointestinal standpoint, medicinal mushrooms are prebiotics, anti-inflammatory and immunomodulatory. They transform our gut microbiota and contribute to our digestive wellbeing. Microbiota modulation is an exciting field, given the importance of the balance of the microbiota in the prevention and improvement of diseases, not only gastrointestinal in fact, but of all kinds. For instance, medicinal mushrooms have demonstrated clinical benefits in intestinal inflammatory diseases such as IBS and IBD.

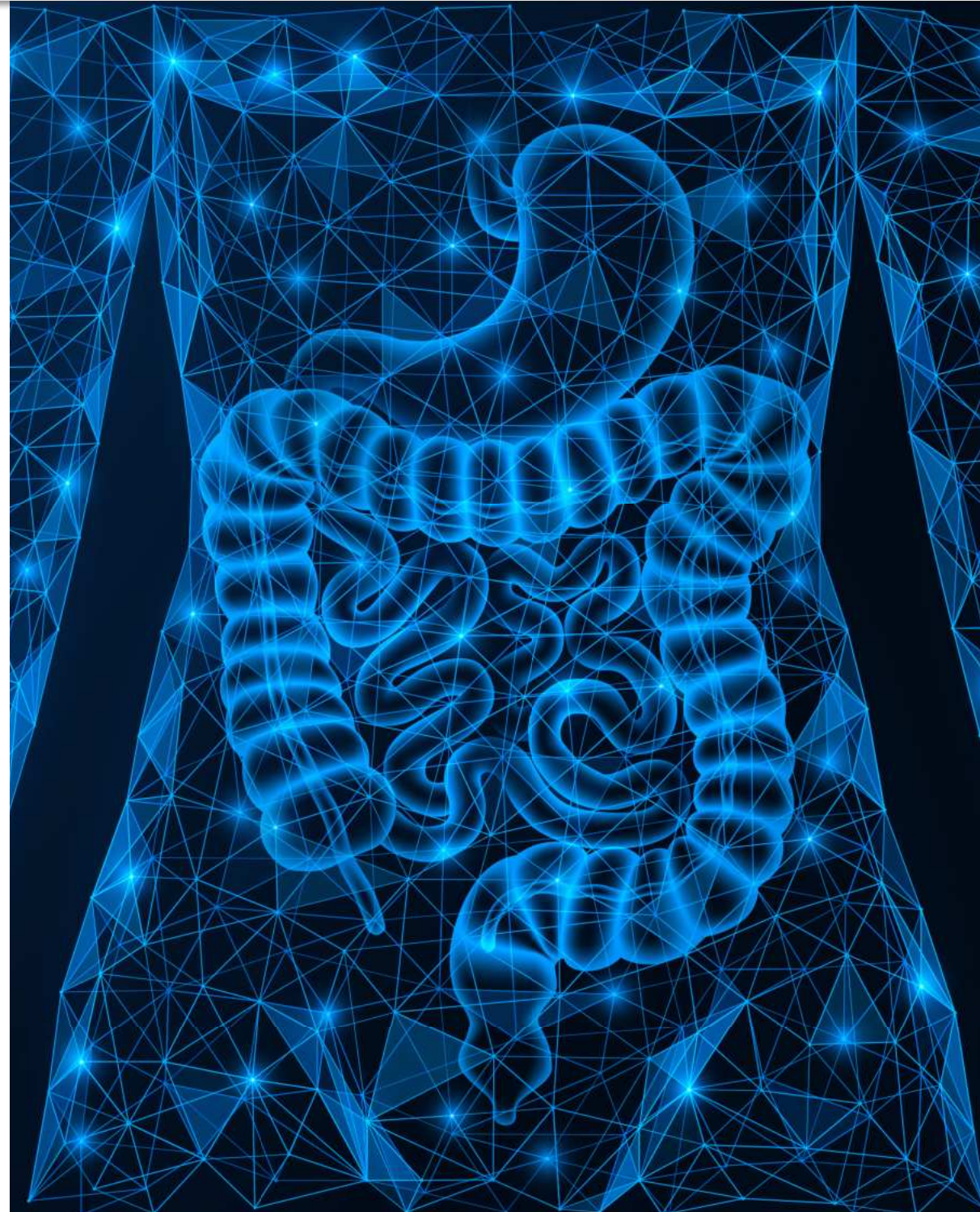
"Medicinal mushrooms are great

immunomodulators in infectious and autoimmune diseases. They modulate our immune system to an optimal equilibrium, naturally support the body's own defences and in integrative oncology, in combination with the usual treatments (such as chemotherapy, radiotherapy and immunotherapy), medicinal mushrooms, especially their combinations in high concentrated extracts, contribute to the improvement of the quality of life in cancer patients, reducing unwanted side effects with positive results in terms of remission and improvements in life expectancy also reported.

"From a musculoskeletal system point of view, they have, for example, a relevant role in modulating the inflammatory and immunological response in osteoarthritis and arthritis. Important role also in reducing muscular fatigue, muscular and joint pain and stiffness. And of great relevance today in terms of mental and emotional health, medicinal mushrooms have relaxing (anti-stress) properties, and have been shown to be useful in depression and anxiety, as well as in Alzheimer's disease and cognitive deterioration, amongst other areas of use."

Bradshaw went on: "Medicinal mushrooms contain some of nature's most potent health-promoting compounds and as such, have been the subject of a huge amount of research into their potential benefits and protective properties.

"Much of the research centres around the properties of compounds, such as polysaccharides, triterpenes, lignins and phytosterols, which are found abundantly in mushrooms. These compounds are associated with a vast array of important health benefits, including enhancing immune function, reducing microbes, supporting respiratory health, adaptogenic potential and much more."





THE SPECIFICS

There is a rich array of medicinal mushrooms, all with a range of health benefits. So, what are the ones for you to consider?

Bradshaw offered her insights, commenting: "Each mushroom has its specific health benefits.

■ **Reishi:** Studies have analysed the bioactive compounds within reishi mushroom and have found over 400 compounds within the fruiting body, mycelia and spores. The primary active compounds include triterpenoids, polysaccharides, nucleotides, sterols, steroids, fatty acids, proteins, trace mineral elements, vitamins and amino acids. The polysaccharides, Ganoderma A, B, C, found in reishi, have been shown in studies to have blood sugar regulating properties. Triterpenes are also present in reishi and ganoderic acid has been shown in studies to manage the symptoms of allergies by inhibiting the release of histamine.

■ **Maitake:** Numerous research studies have highlighted several significant health benefits associated with compounds in maitake mushroom. Like other medicinal mushrooms, maitake contains many potent elements and is especially rich in β -Glucans (beta-glucans), a group of β -D-glucose polysaccharides, which have been scientifically shown to support immune function. Maitake mushrooms are especially rich in the sulphur-containing antioxidant, ergothioneine. This unique compound produced by fungi has been shown to have strong antioxidant properties. There is also research to suggest that ergothioneine can support a healthy inflammatory response within the body, while also helping to normalise several markers related to cardiovascular health. Maitake is also considered an adaptogenic agent, helping the body to adapt to physical, emotional and environmental stressors.

■ **Chaga:** Chaga has one of the highest ORAC (Oxygen Radical Absorbent Capacity) scores of any food. As such, their high antioxidant potential means they may effectively protect the body from harmful free radicals. The active constituents within chaga include a combination of triterpenes, such as betulinic acid, sterols, and polysaccharides. Chaga has been the subject of numerous scientific studies which support its actions as cell-protective and immune supportive, while also acting against viruses and enhancing endurance.

■ **Shiitake:** Shiitake mushroom is native to East Asia and cultivated

worldwide for its purported health benefits. The medicinal properties of shiitake mushroom are attributed to an extensively-researched polysaccharide (sugar molecule) named lentinan. Lentinan (also known as beta 1,3 glucan) has been shown to destroy viruses and microbes that compromise good health, while offering potent cell-protective capabilities."

Barrett also explored the specifics of some key mushrooms, commenting: "Reishi, lion's mane and cordyceps are the three main medicinal mushrooms I work with most consistently again and again with clients and for personal, preventative and therapeutic support, they also have standout qualities for the biohacking community I mentioned previously, who have taken a keen interest in the rejuvenating and optimising properties and effects of these medicinal mushrooms in particular.

"Reishi, also known as the mushroom of eternal youth, is one of the most powerful adaptogens in nature, having a calming, stress-relieving, anti-inflammatory effect and helps promote sleep. The antioxidant properties of reishi are well established, and reishi can play an important role in minimising the effects of ageing by reducing damage from oxidative stress associated with free radicals.

"Reishi is strongly anti-inflammatory, regulates the intestinal flora, is a natural antidepressant (5-HT2A antagonist), protects the brain from the effects of stress and is a natural tonic for the vagus nerve. *Ganoderma lucidum* (reishi) contains active compounds such as triterpenes and polysaccharides, which have shown significant benefits which improve mood, provide greater energy, reduce incidence of chronic disease and increased longevity.

"*Cordyceps sinensis* can also benefit stress resistance and potentially delay the ageing process by decreasing the pro-inflammatory monoamine oxidase and lipid peroxidation activity associated with ageing (Ji et al 2009). Cordyceps has also shown to help normalise the physiological effects of stress on the thyroid and other endocrine glands (Koh et al 2003). These include fatigue and exhaustion. A double-blind placebo-controlled trial also found the adaptogen, cordyceps, to act like a hormone balancer, helping to combat fatigue and increase levels of energy and endurance. (Rossi et al 2014).

"Cordyceps increases ATP and oxygen utilisation. Several scientific

studies confirm cordyceps' capacity to increase oxygen utilisation and ATP production. *C. sinensis* supplementation improves exercise endurance capacity by activating metabolic regulation in skeletal muscle and a coordinated antioxidant response (Kumar R et al., 2011). In students, cordyceps administration improved concentration and alertness, while in the elderly, it helped with asthenia and depression. In sedentary healthy men undergoing intense physical exercise, after two weeks' consumption of *C. sinensis*, an increase in energy generation and an anti-fatigue effect were observed (Nagata et al., 2006). A rodent study using aqueous extract of *C. sinensis* also prolonged exercise time (swimming) by 20 per cent and reduced fatigue (Koh et al., 2003)."

And finally, Barrett focused on lion's mane.

"Lion's mane (*Hericium erinaceus*) is a medicinal mushroom with a variety of pharmacological activities in preventing many age-associated neurological dysfunctions, including Alzheimer's disease and Parkinson's disease (Jiang S et al., 2014; Li IC et al., 2018). Supplementation of lion's mane has been shown to improve cognitive function and memory in people with mild cognitive impairment (Mori et al., 2009) and is therefore highly recommended in the treatment of neurodegenerative diseases," she advised.

"The action of *H. erinaceus* is based both on its ability to regenerate myelin and to regenerate new synapses thanks to its content of hericenones and erinacines, which act as Nerve Growth Factor (NGF) enhancing agents, both at the level of expression and secretion (Yadav SK et al., 2020). This contribution of *Hericium erinaceus* has been shown to both prevent (Li IC et al., 2018) and slow cognitive decline and dementia (Lee LY et al., 2021), as well as showing neuroprotective effects (Zhang J et al., 2016; Tzeng TT et al., 2018; Brandalise F et al., 2017; Liu Z et al., 2015).

"Several studies and reviews have demonstrated the neuroprotective capacity of Reishi (*Ganoderma lucidum*), as well as its preventive and therapeutic effect on neuronal damage and cognitive impairment (Yu N et al., 2020; Quan Y et al., 2019; Zhao C et al., 2019). Other studies have demonstrated the antioxidant effect of *G. lucidum*, concluding that, thanks to the ability of its active ingredients to scavenge free radicals, can enhance the reduction of age-related oxidation. (Huang S et al., 2018; Lai G et al., 2019; Zhang Y et al., 2021; Zeng M et al., 2021)."





CAUTION ON QUALITY

It is important to consider quality when recommending a medicinal mushroom product.

Barrett advised: "The number one thing to look out for when choosing a medicinal mushroom supplement is that it is certified organic, ideally 100 per cent organic mushroom fruiting body or grain-free mycelium in vegetable capsules and it is vital to know the quality and production processes are standardised and certified. GMP (Good Manufacturing Practice) certification ensures that production is uniform and controlled, meeting pharmaceutical safety and quality standards. Third party controls such as these ensure that companies are living up to any claims they make.

"Look for products that are free from gluten, preservatives, chemical products, sweeteners, flavourings, starch, wheat, corn, nuts, soy, sugar, and dairy, as well as grain biomass. It is important to find a brand where the production of extracts is uniform and controlled from the start following pharmaceutical GMP standards of excellence and Hifas da Terra has one of the largest private fungal stocks in Europe and continues to develop new cultivation techniques optimised to achieve standardised production with high concentration of active ingredients."

Bradshaw added: "Mushrooms have various stages of development and there is much debate as to which stage offers the most health benefits. It's best to look for products that harness all the health benefits naturally found within the whole organism. The biologically active compounds found with whole mushroom include the primordia, mycelium, fruiting bodies, as well as extra-cellular compounds that are responsible for the known medicinal properties found in fungi."

Barrett added: "Be sure to choose a certified organic product, with GMP certification and a guaranteed standardised amount of bio-available compounds and beta-glucans in each dose."

RESEARCH FOCUS

The body of evidence around medicinal mushrooms and the many health properties they possess is ever-growing.

"More scientific research has been done, with evidence they are generally very safe to take as well as being very synergistic with other ingredients (herbs and other foods)," Barrett explained. "Hifas da Terra extracts have recently been used in a heavy metal chelating study, the first of its kind in humans to show the chelating capacity of medicinal mushrooms. Two parallel studies were carried out to evaluate the chelating effects of the synergy of medicinal mushrooms present in Hifas-Detox with two strains of organic HdT extracts of Maitake and Polyporous. Results showed circulating heavy metals present in the extracellular matrix decrease and are cleared demonstrating the detoxification synergy of organic HdT extracts.

"From a safety perspective, Hifas da Terra took part in an independent trial, The Medina Trial, testing their concentrated extracts with the liver drug metabolism pathways to show no significant

interactions with other medications. The only European study to date that has proven a non-significant interaction of mycotherapy supplements with the main drug liver metabolism pathway of the liver."

She continued: "Medicinal mushrooms work by regulating and optimising different body systems over time with regular daily use, they contain bioactive components that promote life extension (Wang J, 2017), such as RF3, and the survival of human stem/progenitor cells have been identified in reishi due to certain polysaccharides.

"The antioxidant and anti-ageing effects of reishi have been demonstrated in in vitro and in vivo studies (Chen, W 2010) and are due in particular to its polysaccharide content and ganoderic acids within the triterpenes. Most of the studies carried out have originated from the fruiting body of reishi and the use of extracts. The antioxidant mechanisms described include the elimination of hydroxyl radicals and DPPH, as well as metal chelating activity, increased production of antioxidant enzymes (NADPH, SOD, Mn-SOD, CAT, GSH and GSH-Px) and protection of mitochondria in macrophages (Wang, J 2017)."



Award Winner

COGNI ACTIVE

with Cognizin® citicoline. Zinc supports normal cognitive function.



Product features

- ✓ Featuring clinically researched Cognizin® citicoline
- ✓ Zinc contributes to normal cognitive function
- ✓ Vitamin B6 contributes to normal psychological function
- ✓ Folate, vitamin B6 and B12 contribute to the reduction of tiredness and fatigue
- ✓ With phytonutrients lutein and zeaxanthin



Voted best new food supplement.¹ We take high standards seriously, which is why we're the **most recommended professional supplement brand**, ranked highest in **quality** and **trust**.²

See what's in our products, and **what's not**, at pure-encapsulations.co.uk

pure
encapsulations®

¹ In the U.K. and Ireland, as voted by health professionals and their patients, True Health Magazine© 2022, Nutrition iMag© 2022, IHCAN Magazine© 2022
² According to health care professionals in the U.S., among brands surveyed, Nutritional Business Journal© 2016, 2020; Kaiser Associates 2014



Mycology Research Laboratories
Global Leader in Mushroom Nutrition

THE GLOBAL LEADER IN MUSHROOM NUTRITION PRODUCTS

Founded in the United Kingdom in 1998, Mycology Research Laboratories Ltd. proprietary cultivation technology consistently produces uniform, contaminate-free mushroom biomass powder in accordance with both EU Regulations and UK (GB-ORG-04) organic standards.

The biomass powder is then processed into both 500 mg tablets and 250 g powder (with 2 g spoon) presentations that are certified to ISO 22000:2018 standards (2019/GSA.0263).



MRL RANGE OF PRODUCTS

CORIOLUS-MRL	MAITAKE-MRL	SHIITAKE-MRL	PORIA-MRL	HERICOR-MRL
CORDYCEPS-MRL	TRITON-MRL	AURICULARIA-MRL	CHAGA-MRL	POLYPORUS-MRL
REISHI-MRL	BLAZEI-MRL	PLEUROTUS-MRL	HERICIUM-MRL	

DISTRIBUTORS OF MRL PRODUCTS IN THE UK

NATURAL DISPENSARY
TEL: 01453-757-792

REVITAL
TEL: 0800-252-875

ANEID UK
TEL: 01582-485-209

BREAKSPEAR MEDICAL
TEL: 01442-261-333 EXT: 291

WWW.MYCOLOGYRESEARCH.COM



Dealing with the diabetes epidemic

With rates of type 2 diabetes increasing rapidly, nutritional interventions are critical to help reverse what many describe as an epidemic. Here's what you need to know about blood sugar balance and reducing the risk of diabetes.

The data could not be starker when it comes to the rate of diabetes. According to the charity, Diabetes UK, more than 4.9m people have the condition in the UK, and if nothing changes, it predicts that 5.5m people will have diabetes in the UK by 2030, with around 90 per cent of cases being type 2. Furthermore, some 13.6m people are now at increased risk of type 2 diabetes in the UK.

And the charity also points out that research has consistently shown that for some people, combined lifestyle interventions – including diet, physical activity and sustained weight loss – can be effective in reducing the risk of type 2 diabetes by about 50 per cent.

Lindsay Powers, Nutritionist at Good Health Naturally, pointed out: "Type 2 diabetes is becoming an increasingly prevalent issue. The prevalence of diabetes in the UK is rising rapidly, and the number of people living with the condition is expected to reach 5.5m by 2025. These figures highlight the importance of understanding potential risk factors associated with type 2 diabetes and making lifestyle changes to reduce one's risk of developing this serious condition. Diet, stress, a sedentary lifestyle and obesity are some main factors associated with an increased risk of developing type 2 diabetes."

Jenny Carson, Senior Nutritionist at Viridian Nutrition, went on: "Diabetes UK state that more people than ever have type II diabetes (TIIDM) and that even more people than ever are at risk of TIIDM. These are hard to swallow facts which, by 2030, it is expected that the UK is facing the cost to healthcare to support 5.5m people with TIIDM. It is considered that several factors are at play to contribute to this rise. Whereby lifestyle and diet are considered the greatest contributors, followed by physical activity, ageing, socioeconomic status, education and urbanisation and genetics."

Rosie Rayner, ND, Technical Support at Bionutri, added: "Type 2 diabetes has increased over the decades due to the rising amount of obesity, high calorific dietary intake, sedentary lifestyles and the way in which we live our lives now – with a lack of seasonal home cooked food, walking and movement."

And it's also important we understand the factors that are known to raise our risk of developing type 2 diabetes.

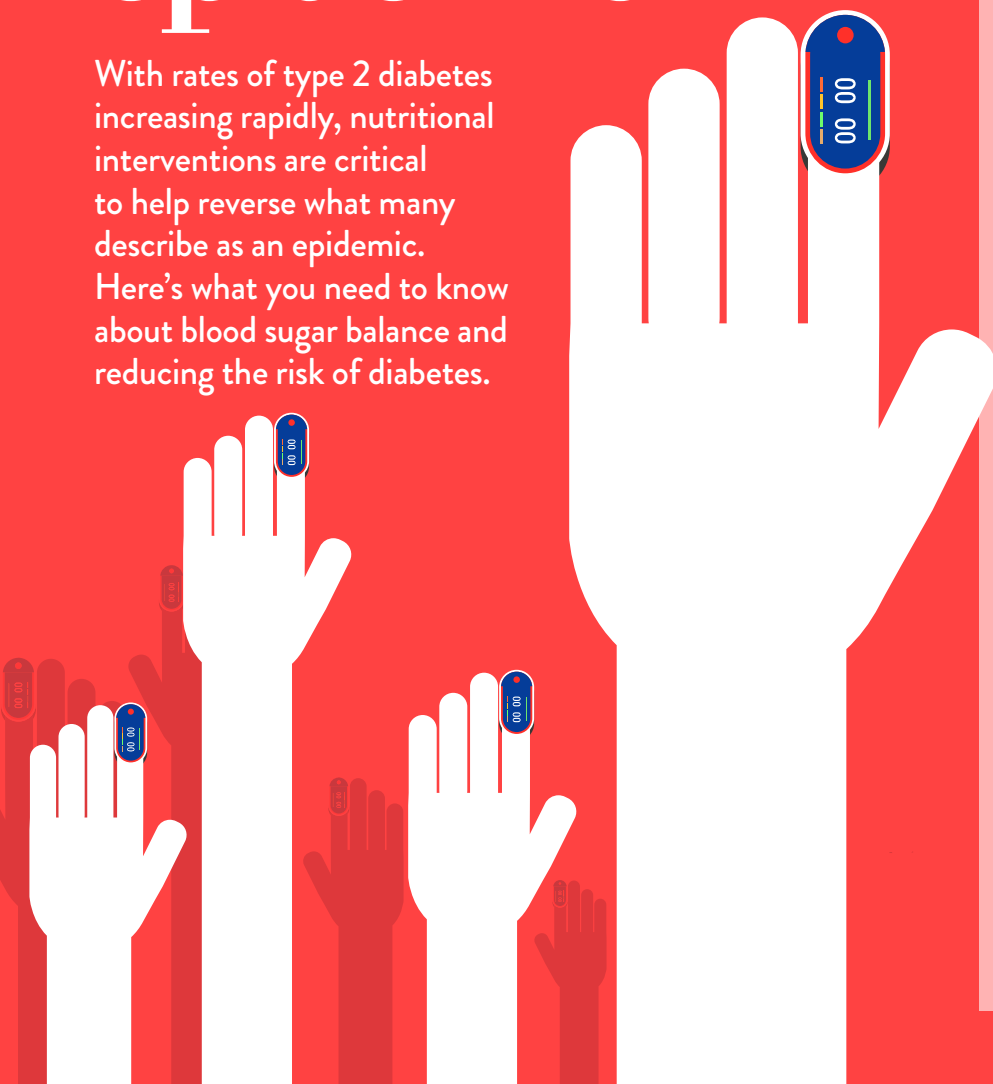
Carson advised: "TIIDM is highly associated with diet and lifestyle, plus to a lesser extent, genetics. Therefore, multiple factors are considered to increase the risk of developing TIIDM. Those diagnosed with prediabetes have a high risk of developing full blown TIIDM. It is considered that circulating blood glucose is elevated and either a delay in insulin secretion or insulin resistance is developing.

"Although health can be had at any size, a proportion of those in the overweight or obese body mass index categories are at a greater risk of TIIDM. It may be that in these individuals, the weight gain is due to poor blood glucose handling. Those with less opportunity or motivation to exercise may be at increased risk. Typically, it is considered that less than three 30-minute sessions of physical activity increase the risk of TIIDM.

"Naturally with age, the mechanisms of blood glucose regulation become slower and less responsive and so from the age of 45 years, the risk of developing TIIDM increases. Although lifestyle and dietary factors play a role, so does genetics and an increased risk of TIIDM is conferred when close family members have or had TIIDM. Women who develop gestational diabetes during pregnancy or gave birth to a baby that weighed greater than 9lbs can develop a predisposition to a greater risk of TIIDM. While ethnicity plays a role, African American, Hispanic, American Indian, some Pacific Islanders and some Asian people are at a higher risk."

Powers went on: "Studies have found that people who consume a diet high in processed and refined foods are at an increased risk for developing type 2 diabetes, as these foods lack essential nutrients and can lead to weight gain. A high-sugar diet can significantly increase one's risk of developing type 2 diabetes. Foods and drinks high in sugar, such as sodas, juices, and sweets, are quickly absorbed into the bloodstream, leading to a rapid rise in blood glucose levels. Over time, this can lead to insulin resistance, which is associated with an increased risk of diabetes.

"Additionally, physical inactivity is also associated with an increase in type 2 diabetes risk; regular exercise can help lower this risk. Other lifestyle factors, such as smoking and alcohol consumption, have also been linked to a greater likelihood of developing type 2 diabetes."



WARNING SIGNS

As well as the rates of diabetes on the up, we also know there are many people living with pre-diabetes, an indicator that a person could go on to develop the condition. So, what do you need to be aware of in terms of potential warning signs?

"Although T1DM is a health condition whereby poor blood glucose balance is exacerbated by poor insulin secretion and/ or insulin resistance, the symptoms can be wide reaching and affect multiple body systems," Carson explained.

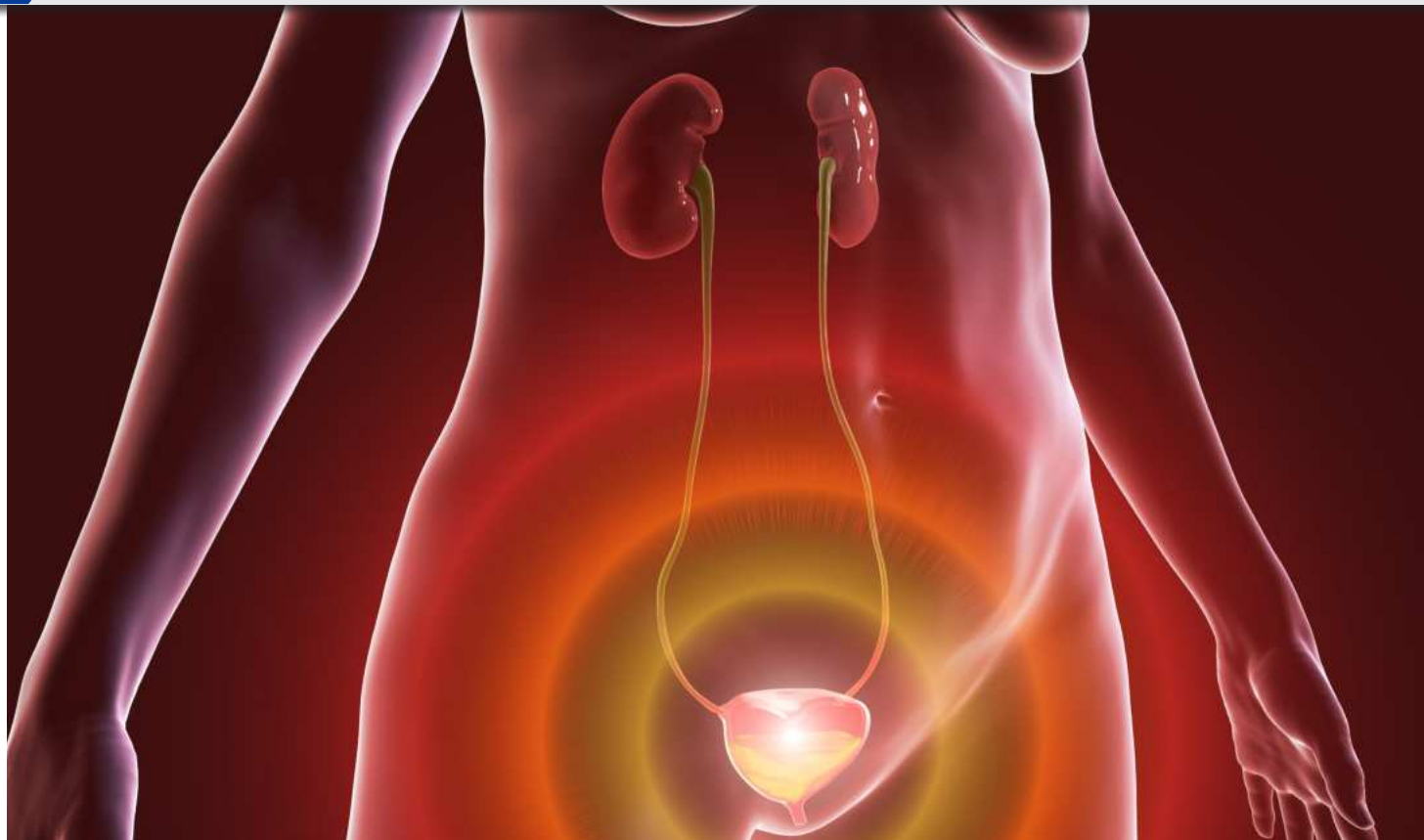
"Frequent urination, especially at night, can be an attempt by the body to clear glucose from the blood. This pulls fluid stores from tissues to expel the glucose and triggers frequent urination and thirst. Given that the urine is rich in glucose, it can attract *Candida albicans* yeast spores that develops into thrush, which affects the tissues around the urethra in both males and females. High glucose urine is also quite irritating to the soft tissues of the urethra and this pain and irritation, plus *Candida* infection, may spread throughout the genital area.

"People with diabetes often describe themselves as feeling fatigued and lethargic. This is a sign of hyperglycaemia, elevated blood glucose, glucose that is not being used to produce energy in the cells, but it is sitting in the blood. In some cases, body weight changes occur. As the glucose does not enter the cells for energy production, the cells think the body is starving and stimulates hunger. This can lead to weight gain through a greater caloric intake, but in other people there is weight loss. The weight loss is a result of muscle and fat catabolism to provide the cells with a fuel to produce energy.

"Elevated blood glucose can affect nerve function to cause neuropathy, which can lead to poor blood circulation, which makes it harder for the blood to deliver the necessary compounds to heal wounds. Therefore, not only are the nerves damaged and not working properly but wounds and injuries take longer to heal. Further linked to elevated blood glucose is diabetic retinopathy, which is when the blood glucose damages the tissues of the retina and blood vessels that feed blood to the eyes. It is considered that the blood vessels of the retina leak fluid into the macula, which is the part of the retina that is responsible for sharp, central vision."

Rayner continued: "It is predicted that around 40-50 per cent of over 40-year-olds are in a prediabetic state, so it is very important to know the signs. Not everyone experiences them, but they can include: increased thirst and hunger, frequent urination (especially at night), feeling more tired, poor wound healing, thrush, blurred vision and losing weight without trying."

And Powers commented: "If blood sugars are unbalanced, we may have



energy slumps, sugar cravings and mood swings. More advanced warning signs that indicate an increased risk of type 2 diabetes include frequent urination, extreme thirst, unexplained fatigue, weight loss, slow-healing sores, blurry vision, and tingling sensations in the hands and feet."

And what are the knock-on effects to health for those who suffer with type 2 diabetes?

Rayner commented: "Having Type 2 diabetes increases the chances of heart disease, especially coronary artery disease, which can lead to heart attack or stroke. Epithelial damage from diabetes is common, which can negatively affect the eyes, kidneys, skin and nerves. Sadly, almost 10,000 amputations occur every year in the UK. The NHS spends 10 per cent of its annual budget on diabetes, 80 per cent of which are being spent on complications."

And Carson advised: "Unfortunately, T1DM is associated with several other health conditions. Firstly, non-alcoholic fatty liver disease is closely related to the development of T1DM. In fact, the liver damage can be related

to fructose consumption, namely foods that include high fructose corn syrup. These foods are void of the fibre that is normally found in foods that naturally contain fructose and it is considered that the lack of fibre allows a large dump of fructose in the blood and liver which injures tissues.

"The presence of T1DM increases the risk of further comorbidities, such as heart disease, stroke, foot issues, eye and kidney diseases. This increased risk is attributable to the presence of elevated blood glucose which damages the tissues of the organs or the blood vessels that supply the corresponding organs."

Meanwhile, Powers warned: "Diabetes is linked to several other health issues. Studies have shown that those with diabetes are more likely to suffer from cardiovascular complications such as stroke or heart attack. It can also increase the risk of nerve damage, kidney damage, blindness, hearing impairment, and Alzheimer's disease. Additionally, people with diabetes may experience an impaired immune system, making them more susceptible to infections and illnesses."

WHY BLOOD SUGAR IS UNBALANCED

It's important to understand the factors involved when it comes to blood sugar and why it can be out of control, given the link between raised levels and type 2 diabetes.

Alice Bradshaw, Head of Nutrition Education and Information at Terranova, explained: "Blood sugar levels (or blood glucose levels) is the term used to describe the level of glucose that is present in the blood. This is determined primarily by the food that is consumed, but factors such as exercise, sleep, stress and pancreatic health play a part too.

"Although consumption of all foods will have some influence, carbohydrates have the greatest influence on levels of glucose in the blood. Blood sugar imbalances are very common in modern times as a result of numerous factors ranging from food choices (especially over consumption

of refined carbohydrates) and eating habits, sedentary lifestyles and so on."

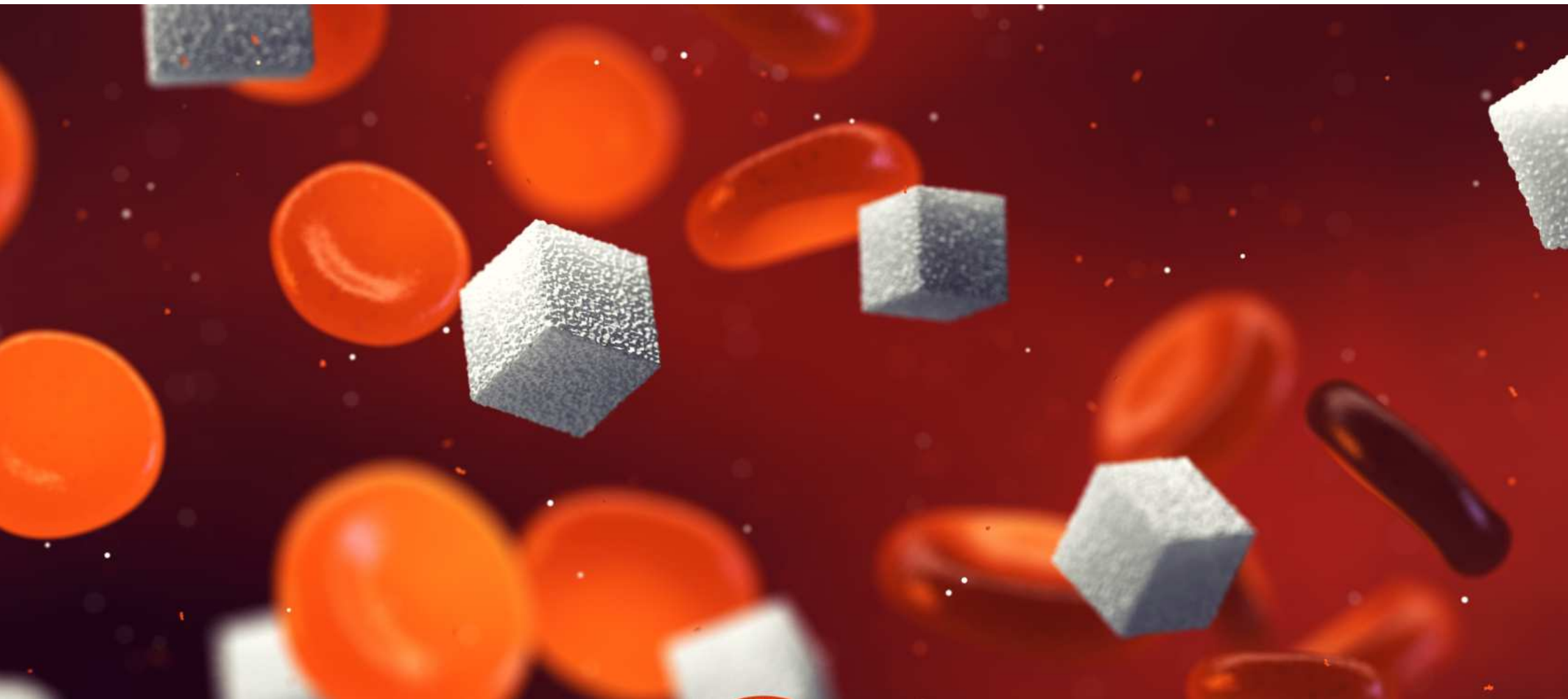
And what effect can this have on us, both short-term, but also the longer-term effects on our health?

Bradshaw went on: "Blood glucose levels need to be kept within a specific range for general good health and a rise or fall outside of this range can result in health concerns over time. If food intake is inadequate, a person may experience low blood sugar or hypoglycaemia. A healthy individual will experience hunger, a lack of concentration and a dip in energy levels. However, if this occurs in someone with impaired blood sugar management or diabetes, the effects are more serious and may result in weakness, palpitations, dizziness and may even result in a loss of consciousness.

"High blood sugar or hyperglycaemia is more of a general concern

these days, mainly due to the abundance and over consumption of highly refined, processed carbohydrates. Although the body has mechanisms for regulating high blood glucose levels, it is more of a concern for those with pre-diabetes or diabetes. Causes of hyperglycaemia include frequent eating (snacking between meals), a high sugar (carbohydrate) diet, stress and a sedentary lifestyle. Certain medications can trigger high blood glucose levels too.

"In a healthy person, glucose levels in the blood are reduced by the hormone, insulin, which is released from the pancreas. If this mechanism fails or becomes less than efficient, the risk for serious complications increases. Uncontrolled diabetes (characterised by extended periods of high blood glucose levels) may result in permanent damage to nerves, eyes, kidneys and blood vessels."





DIETARY MANAGEMENT

We know that much can be done to reduce the risk of type 2 diabetes by changing the diet, and this also plays a role in keeping blood sugar in balance.

When it comes to the important recommendations to make, Powers suggested: "The Western diet has become increasingly full of sugary, processed, starchy foods and unhealthy fats. It lacks many basic nutrients and fibre, so it is no surprise we have seen a steady rise in chronic diseases, including diabetes and obesity. Eating too many of these refined carbohydrates will elevate insulin levels for long periods, and the cells may start to become resistant to the effects of insulin, so your body will need to produce more and more. So, cutting out as many of these foods as possible, like cakes, biscuits, pizzas, pasta, and cereals, will help reduce the insulin response required.

"Replace with vegetables, good quality proteins such as organic meat, oily fish, tofu, beans and pulses, and healthy fats, including olive oil, coconut oil, avocados, nuts, and seeds. Include protein and fat with every meal to help stabilise blood sugar and promote fullness. Snack on olives, nuts or hummus. Beware of fruit, which can be packed with sugars. Stick to rhubarb, watermelon, and dark-coloured berries, which are all low in sugar.

"A clinical trial at Newcastle University has shown intensive weight loss programs can help reverse type 2 diabetes without medication. Professor Roy Taylor, who led the trial, suggests people with type 2 diabetes have become too heavy for their own bodies.

If they accumulate more fat than they can cope with, it can't be stored under the skin, so it will go elsewhere, including the liver and pancreas, causing insulin resistance and increased blood sugar. Intermittent fasting or time-restricted feeding can be a great way to reduce body weight, decrease fasting glucose and insulin, and improve insulin resistance. It takes around eight-10 hours to use up stored glucose, so even a 12-hour overnight fast can be beneficial.

"Look after your gut bacteria too. We know their health is critical in determining your health. Studies show links between poor microbiota and obesity and type 2 diabetes. So, ensure there is plenty of vegetables and fibre in the diet. Fermented foods like kefir and sauerkraut can be beneficial too."

And Rayner added: "Protein consumption decreases ghrelin and increases fullness hormones PYY and GLP-1. Therefore, balancing blood sugar levels by increasing protein at each meal can be extremely helpful. Good sources are from quality meats, fish, eggs or edamame, tempeh, nuts and seeds. Consume whole foods such as fresh vegetables, wholemeal carbohydrates and good fats from olive oil, avocados and oily fish. Avoiding highly processed foods and drinks with added refined sugars and oils is important too. Eating within a 10-12 hour window can be helpful, which allows for a 12-14 hour rest/fast from food overnight."

Carson continued: "It is often considered that the traditional Mediterranean diet is the best style of eating to reduce the risk of and reduce

the severity of T1DM. The traditional Mediterranean diet composes of vegetables, fruit, wholegrains, fish, unprocessed meat, eggs, game, besides olives, nuts and seeds. This pattern of eating removes processed foods and added sugars, preservatives, flavours and additives.

"It is predominantly a low glycaemic index whole foods diet, which means that although carbohydrates are provided, they are those that breakdown slowly so that the glucose is drip fed into the blood, rather than a large dump. Furthermore, the fat-rich foods such as nuts, seeds, olives, fish and eggs are far less insulin stimulating and contribute to quelling inflammation. The pathology of T1DM produces oxidative damage and so the antioxidant rich vegetables, fruits, olives, and seeds will help to counter this damage."

Bradshaw went on: "Anyone who has been diagnosed with pre-diabetes or diabetes should always work with a qualified health care provider. For the general population, adopting healthy eating and lifestyle habits are key to balancing blood sugar levels. Eating regular meals, avoiding refined carbohydrates, sugar and processed foods are the first steps. Meals should contain proteins, fats and non-refined sources of carbohydrates (especially vegetables and fruit such as berries). Nuts, seeds, avocados and oily fish are the most nutrient-dense sources of essential fatty acids. Keeping active, getting adequate sleep and managing stress will also support healthy blood sugar levels."



SUPPLEMENT PROTOCOL

When it comes to recommending supplements that may help support changes in diet and lifestyle, there are some specifics known to help in the area of blood sugar balance.

Identifying those nutrients that those with type 2 diabetes or pre-diabetes can be at risk of being deficient in is really critical.

Carson advised: "A diet that provides a large proportion of simple carbohydrate can contribute to deficiencies in the diet. In T1DM, several crucial nutrients may be suboptimal, namely, zinc, chromium, vitamin D, magnesium, and fat-soluble vitamins. Zinc is found in green leafy vegetables, nuts, seeds, shellfish and fish. It is often underestimated the extent of the role that zinc plays in body functions and this can be the case in blood glucose regulation. In addition, given the role of zinc as an antioxidant, it is important in T1DM to manage the oxidative load.

"Although not a direct cause, low vitamin D levels are associated with worse blood glucose handling. Subsequently, in this state, greater insulin resistance has been observed. Vitamin D is found in dairy, eggs, oily fish and grass-fed meats, while the vegetarian version, D2, is found in mushrooms. vitamin D status is more of a concern in the winter months when the angle of the sun to the earth is acute and so vitamin D cannot be made in the skin. Subsequently Public Health England states that everyone requires a minimum of 400iu daily of supplemental vitamin D.

"It appears that people with diabetes have a greater magnesium urinary clearance as the body attempts to clear blood glucose via urine. This may mean that those with T1DM have a greater dietary requirement for magnesium. Magnesium is found in greens, organ meats, nuts, seeds and sprouted seeds.

"An inadequate intake of the fat soluble vitamins, E and K, can be important deficiencies that may increase the severity and progression of

T1DM. Vitamin E works in managing the oxidative damage associated with T1DM while vitamin K plays role in insulin sensitivity. Vitamin E is found in sunflower seeds, almonds, beets, greens, asparagus, avocado and olives, while vitamin K is found in greens, dairy and fermented soy natto."

Powers went on: "Once we get on a rollercoaster of poor blood sugar balance, our bodies often start just craving more and more sugary foods and drinks. These foods will derail our appetite for healthier choices which will inevitably cause nutrient depletion. In particular, deficiencies in vitamin D, chromium, biotin, thiamine and vitamin C have all been noted in people diagnosed with type 2 diabetes. It is actually hypothesised seasonal fluctuations in glycaemic control in type 2 diabetics may be due to fluctuations in vitamin D levels.

"Chromium is an essential trace mineral required in the insulin signal cascade. Studies have demonstrated it increases sensitivity to insulin by activating insulin receptor enzymes and increasing the amount of insulin binding to cells. A deficiency has been identified in people with severe insulin resistance. It also helps reduce food cravings by keeping blood sugar stable throughout the day."

And when it comes to the supplement recommendations to make as part of a blood sugar protocol, Bradshaw recommended: "Nutritional and botanical supplements have a role in supporting blood sugar balance. Chromium is an essential mineral and is required to aid the regulation of blood sugar. An insufficient intake of chromium is associated with the development of insulin resistance. Some evidence suggests that chromium supplements may help people to lower blood sugar levels in those with blood sugar dysregulation.

"Alpha-lipoic acid is an antioxidant made by the body and found in every cell, where one of its roles is to help turn glucose into energy. Studies have shown that alpha-lipoic acid supplements may help to lower blood sugar

levels, while also helping to relieve symptoms of diabetic neuropathy, which include pain, itching and tingling in the limbs caused by damage to the nerves. Cinnamon has a long history of traditional use in supporting blood sugar balance. Studies show that cinnamon reduces blood glucose concentration and enhances insulin sensitivity, which is common in obese individuals and those with poor blood sugar balance."

For Powers, curcumin offers beneficial effects, commenting: "Curcumin also has a long history of use for diabetics in Ayurvedic and traditional Chinese medicine. Recent research confirms it could help with type 2 diabetes and its associated disorders, including insulin resistance and pancreatic damage.

"Alpha lipoic acid is a powerful antioxidant found in foods such as spinach, broccoli and red meat. It's also produced in smaller amounts in the body. It can help improve insulin sensitivity and blood sugar uptake into the cells. It may also protect against damage caused by high blood sugar for nerves, eyes, heart, kidneys, and pancreas."

And Carson suggested: "Zinc has several roles in glucose management. It is an antioxidant nutrient and therefore maintains balance between oxidative and antioxidative activities which minimises the damage that can occur from T1DM. A good supplemental intake would be 15mg daily. At a cellular level, magnesium plays a role in regulating insulin action, insulin mediated uptake and vascular tone, while in the body's efforts to clear excess glucose, a larger volume of magnesium is also excreted. A good supplemental intake would be 300mg daily."

Rayner went on: "Magnesium malate is highly bioavailable and supports energy production via the Krebs Cycle. Thiamine plays a fundamental role for intracellular glucose metabolism. Chromium may enhance the effects of insulin or support the activity of pancreatic cells that produce insulin. Vitamin D deficiency plays a role in the development of diabetes."

RISK REDUCTION

In addition to the dietary and nutrient focus a person at risk of diabetes should make, trying to move away from a sedentary lifestyle is also really important.

"Several lifestyle options can be beneficial in the reduction of and management of T1DM," Carson commented. "Moderate exercise is considered important and includes activities such as brisk walking, cycling, hiking, or using a manual lawnmower, while vigorous exercise includes running, non-stop swimming where the breathing rate is elevated, cycling rapidly, or sports such as football, gymnastics or skipping.

"If overweight or obese, the reduction in body weight to a healthy body mass index. This can be done via dietary manipulation or diet

and exercise. Stress plays havoc with blood glucose, subsequently, stress management can be beneficial. This may include mindfulness, journaling, yoga, Pilates, reading, walking in nature or meditation. Alcohol is rich in simple carbohydrates, which dump glucose into the blood stream. Therefore, a reduction of alcohol consumption can help to ameliorate this action. Furthermore, alternating between water and an alcoholic drink will dilute the sugar spike.

"Do as the Europeans do and go for a walk after each meal. A 30-minute walk after a meal is considered to reduce post prandial blood glucose. Eat mindfully and slowly; being aware of eating can help to reduce portion size and stop eating as soon as the satiety signals commence. When distracted, the satiety signals are easy to miss, and a larger volume of food is consumed. Smoking is considered

a contributing factor to T1DM. In smokers, approximately 30-40 per cent are more likely to develop T1DM. Therefore, taking steps to stop smoking can impact blood glucose management and reduce the risk of T1DM."

Rayner continued: "Getting active as much as possible is a crucial part of the puzzle for those with T2D and prediabetes, especially resistance training. There is lots of evidence now showing how resistance training improves insulin sensitivity and glucose tolerance. 'Micromovement' daily does help too. This describes the small steps one can take to help stay active, for example, choosing to take the stairs over the lift, or parking further away so you can walk more. Being mindful of technology use is important too, as this can upset circadian rhythms, which can lead to various imbalances in the body, including insulin imbalances."



MenaQ7®
Vitamin K2 as MK-7

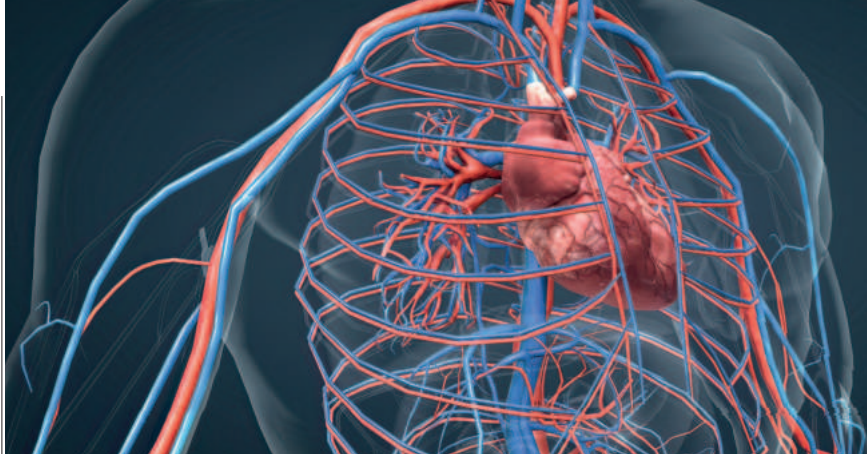
**The Only K2 as MK-7
Clinically Proven to**

- Support bone and heart health in adults
- Promote children's bone health
- Pair perfectly with nutrients like Vitamin D3 and Omega-3

MenaQ7® is Non-GMO Verified, Certified Kosher & Halal, Vegan-Friendly, and Allergen-Free



GnosisByLesaffre.com



Masterclasses Exclusively For Practitioners

Optimising cardiometabolic health

Cardiometabolic dysfunction (CMD) refers to a pattern of changes in metabolic health that causes premature ageing and a profoundly increased risk of heart attack, stroke and chronic illnesses like diabetes and vascular dementia. With the escalating prevalence of CMD in the UK, most practitioners see clients who are affected, including individuals of normal body weight.

Early intervention with diet, lifestyle and specific nutritional supplements can significantly alter the health of individuals with CMD.

This full-day seminar will explore such interventions and how to tailor these to the needs of the individual client, to improve their quality of life. We'll be looking at underlying drivers of CMD and the options available for targeting these to improve both short- and long-term health. As always, there will be opportunity for questions and answers; and plenty of lively debate.



Lunch and refreshments will be provided along with a £15 voucher and free products. The seminar is subject to a £34.95 booking fee.

Spring Seminars 2023

MAY

Thursday 11th	London
Thursday 11th	York
Thursday 18th	London
Thursday 18th	Belfast
Thursday 25th	Birmingham
Thursday 25th	Bournemouth
Thursday 25th	Bury St Edmunds

JUNE

Thursday 8th	Edinburgh
Thursday 8th	St Albans
Thursday 8th	Brighton
Thursday 22nd	Newcastle
Thursday 22nd	London
Thursday 29th	Bristol

 **Pharma Nord**
Academy

To register, head on over to pharmanord.co.uk/events

EXPERT ADVICE

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



What are important considerations for kidney health?



SUE MCGARRIGLE ADVISED: Kidney tissue is susceptible to oxidative stress and irritation from the by-products of digestion and metabolic waste materials and works closely together with the liver to remove them. These functions are of primary importance to overall health and longevity. The kidneys produce hormones including calcitriol for bone health, erythropoietin for production of red blood cells and the enzyme, renin, which activates the renin-angiotensin system. The kidneys are natural filters of the blood and serve several regulatory roles in the body essential in the urinary system, as well as homeostatic functions such as the regulation of electrolytes, maintenance of acid-base balance and regulation of blood pressure.

So, keeping them healthy is vital particularly as we get older. There are around 13,300 new kidney cancer cases in the UK every year (2016-2018). There is also a rise in kidney stone cases. Common causes leading to kidney problems include infection, obesity, high blood pressure, which can

damage the small blood vessels in the kidneys, and high blood sugar from diabetes, which can progressively damage the kidneys, eventually causing chronic kidney disease. Fizzy drinks, wine, salt, tea, and coffee due to their diuretic effects, foods of the nightshade family, which affect mineral balance, and tobacco are examples which may cause kidney weakness. Increasing fluids, ideally water, is important.

Highly nutritive dandelion root promotes the regular functioning of the kidneys, and the minerals it contains are important to the urinary tract. Dandelion is a natural urinary antiseptic as it promotes increased urine production, its diuretic action helping the body to eliminate excess fluids through the kidneys but does not deplete the body of potassium as most prescription diuretics can. Dandelion root contains significant amounts of antioxidants and promotes the flow of bile so helping liver metabolism and digestive function. In helping to regulate blood glucose and cholesterol levels, this can protect the kidneys from damaging effects such as in diabetes.

Stinging nettle (*Urtica dioica*) is a superior leafy green plant, nutrient dense due to its shady growing position and containing one of the highest amounts of protein together with a long and impressive list of vitamins, minerals, flavonoids, sterols, chlorophyll, and tannins. Most people give it a wide berth, but nettle is one of the archetypal alternative herbs that nourish health by strengthening and balancing metabolic functions. It is a slow-acting nutritive herb that gently cleanses the body of metabolic wastes supporting kidney and liver function.

Dong quai is popular in Oriental cultures, where it has long been thought to nourish the blood, its coumarin content helps to dilate blood vessels and relax smooth muscle, aiding circulation. It combats scarring

and contributes to retarding the progression of renal fibrosis.

Alpha lipoic acid (ALA) is a significant water and fat soluble antioxidant which is highly protective in the kidneys. ALA improves insulin sensitivity, reduces inflammation, and also helps to induce precipitation of calcium oxalate in renal tissues, which contributes to kidney stone formation. Reducing high oxalate foods will help.

Hibiscus flower has shown antibacterial activity including *E. coli* and *Pseudomonas sp.* which can cause urinary infections. In the form of mucilaginous infusion the flowers have been used to relieve painful and scalding urine, cystitis, and other irritable conditions of the genito-urinary tract.



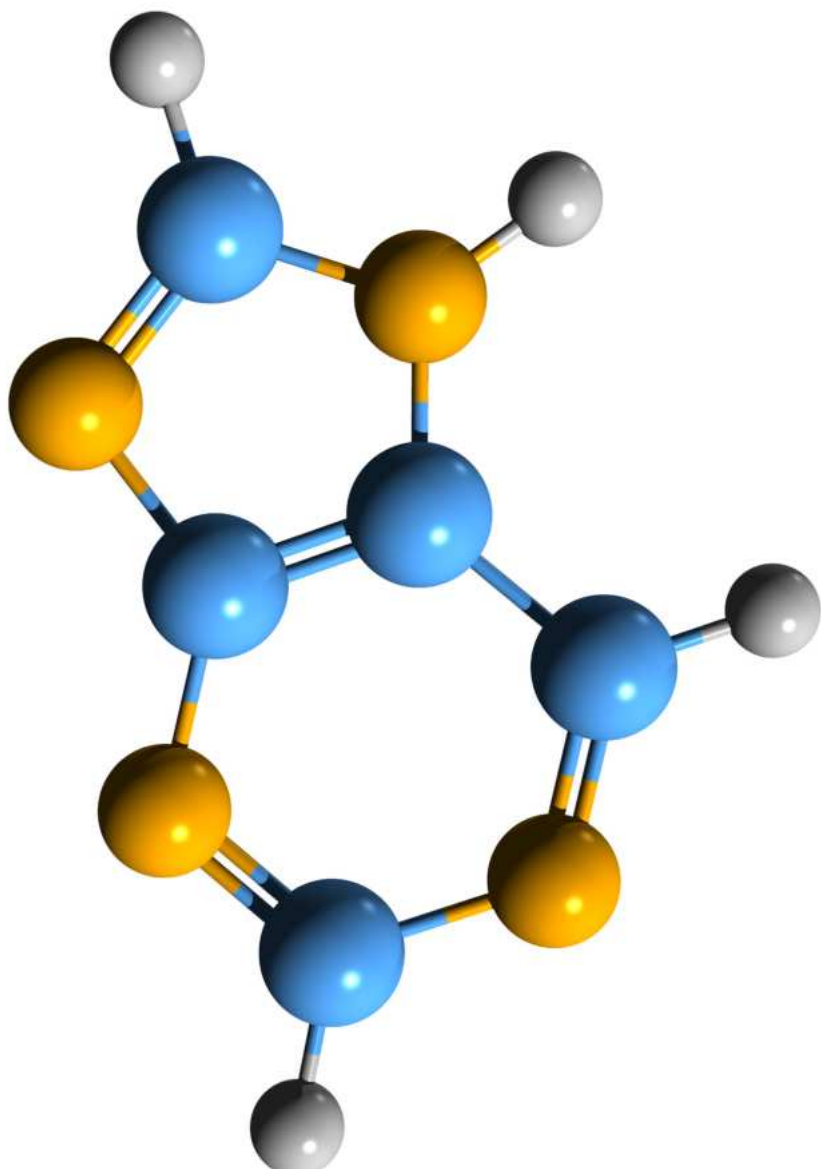
ABOUT THE EXPERT

Sue McGarrigle ND DiplON mBANT, mGNC is a Clinical Nutritional Therapist and Naturopath and has practiced since 2001. She is Technical Manager at Bionutri. As a lecturer to college and university students to Masters level, Sue has trained hundreds of healthcare and medical practitioners in many aspects

of nutritional therapy. She writes as a regular contributor of specialist nutrition articles for magazines and newspapers and has been a guest speaker at national level. Her lectures offer a comprehensive approach to nutrition practice and practical naturopathic techniques. Sue is also a member of the BANT Professional Practice Committee.



Why are nucleotides so essential to health, and how can we obtain enough, given low nucleotide content of our modern diets?



RACHEL HOYLE EXPLAINED: The human body has a relentless demand for new cell production, and consequently for nucleotides in their pyrimidine and purine forms.

Along with production and salvage pathways, nucleotides can be obtained from our diet, which is generally considered to be adequate to cover the body's needs^{1,2,3}. However, when nucleotide production is most important, during an infection, recovery from injury, chronic disease, and during times of high stress and performance, this is unlikely^{4,5,6}. This means that nucleotides are conditionally essential.^{6,7}

Since the late 1980s, there has been recognition of the essential role of nucleotides during early development and their high concentration in maternal milk⁸ led to the inclusion of nucleotides in infant formula, these now being mandatory compositional ingredients.⁹

Little account has been taken for how our modern diets have moved away from evolutionary times. Humans have historically eaten parts of animals that have high levels of nucleotides in organ meats; the tissues, such as the liver, stomach, intestines, and brain (in other words, the offal).^{10,11} It has now become common practice to discard the offal and eat the less nutritious meat.

In 2015, the Department for Environment, Food and Rural Affairs (DEFRA) published their survey of 150,000 households from the time period 1974-2014. It was observed that liver and other offal was purchased 92 and 87 per cent less by the end of this period compared to the start. For example, a weekly consumption of 36g of liver dropped to just 3g.^{Fig.1} What's more, vegetarian and vegan diets

have been found to be particularly devoid of nucleotide dense foods.

The nucleotide content of standard portions of various foods was reported in *IHCAN* magazine in 2011 in an article by Dr Robert Verkerk.^{Fig.2} The graphic shows the distinct difference in content between meat, offal, fish foods (up to 700mg nucleotides per portion) and fruit and vegetables (up to 150mg nucleotides per portion). It has also been established that over 80 per cent of nucleotides sourced from food are of the purine type, so there is a higher dietary deficiency of the pyrimidine type.

It has been determined that the minimum level of nucleotides required to support good health is 1500mg a day. For people under stress or disease challenge, the number of nucleotides required goes up appreciably to between 2000 to 2500mg daily. The low nucleotide content of our modern diet means that the typical dietary intakes range from just 500mg up to 1500mg daily for the Paleo type diet.

Nucleotide supplements currently on the market typically supply dosages of between 100mg and 1g. The upper end of this dose range is likely to bring dietary intakes to levels that are comparable to those associated with typical intakes over the majority of human evolutionary history.

The evidence to support the need for nucleotide supplementation can be seen. Certain intensive care medical recovery foods now include nucleotides, and over the last decade, food supplements have been tested in human clinical trials of enteral feeds, and the independent clinical studies with IBS¹², URTI (colds) infections¹³, stress (intensive¹⁴, moderate endurance¹⁵ and resistance¹⁶).



ABOUT THE EXPERT

Rachel Hoyle BSc, a science graduate, has pioneered the development of nucleotide-based products since the 1990s in collaboration with Dr Peter Köppel, renowned Swiss nucleotide researcher. Her initial responsibility was to develop natural products that reduce dependency on antibiotics in animal nutrition. More recently, Rachel has researched and developed nucleotide supplements that address modern dietary deficiencies. Her company, Nucleotide Nutrition, was awarded innovation grants to fund clinical research for these supplements, resulting in published scientific papers that can be found on independent website, www.nucleotides4health.org

The mechanisms of magnesium

Nutrition expert, Keeley Holland, examines how magnesium works and understanding the correct needs for your clients.

Magnesium supplements are available in many types and formats, with most formats being divided into two preferable routes into the body. Most magnesium supplements on the market are oral-based in the form of tablets and capsules, but there are a few transdermal options on the marketplace for those who prefer to bypass the digestive system. Magnesium can be hard to absorb in the gut,

and in some cases can result in digestive upset also. In these instances, magnesium chloride applied topically or in the form of magnesium chloride bath flakes may be beneficial in elevating serum magnesium levels and alleviating muscle discomfort directly at the source. For those who prefer an oral supplement, magnesium glycinate is gentle on the stomach and highly absorbable compared to other forms such as citrate and oxide.

Whilst most supplements on the market are suitable for elevating levels, the form of magnesium can also have additional benefits for supporting health conditions. For example, magnesium malate is good for alleviating muscle pain and fibromyalgia symptoms, whilst glycinate is helpful for improving mood, sleep and anxiety. Not many forms of magnesium cross the blood-brain barrier, but L-threonate can, and it helps to improve memory and cognition.





HOW MUCH MAGNESIUM DO YOU NEED?

According to the NHS, healthy men aged 19-64 years require 300mg magnesium per day, whilst women of the same age require 270mg. Food sources of magnesium include brown rice, cashews, spinach, avocados and almonds, however, over the last 50 years or so, trace mineral levels have been depleting in our soils, leading to crops that are not as nutritionally dense as they once were.

There are a few groups of people who are at risk of developing a magnesium deficiency, and these include but aren't limited to, over 60s, those with digestive disorders, those with type 2 diabetes or taking proton pump inhibitors, athletes, and alcoholics. Some of these conditions are linked to increased urinary output or a reduced ability to absorb nutrients from food in the gut, which can deplete mineral levels within the body, so topping up with a supplement can help to bridge the gap.

SPOTTING MAGNESIUM DEFICIENCY

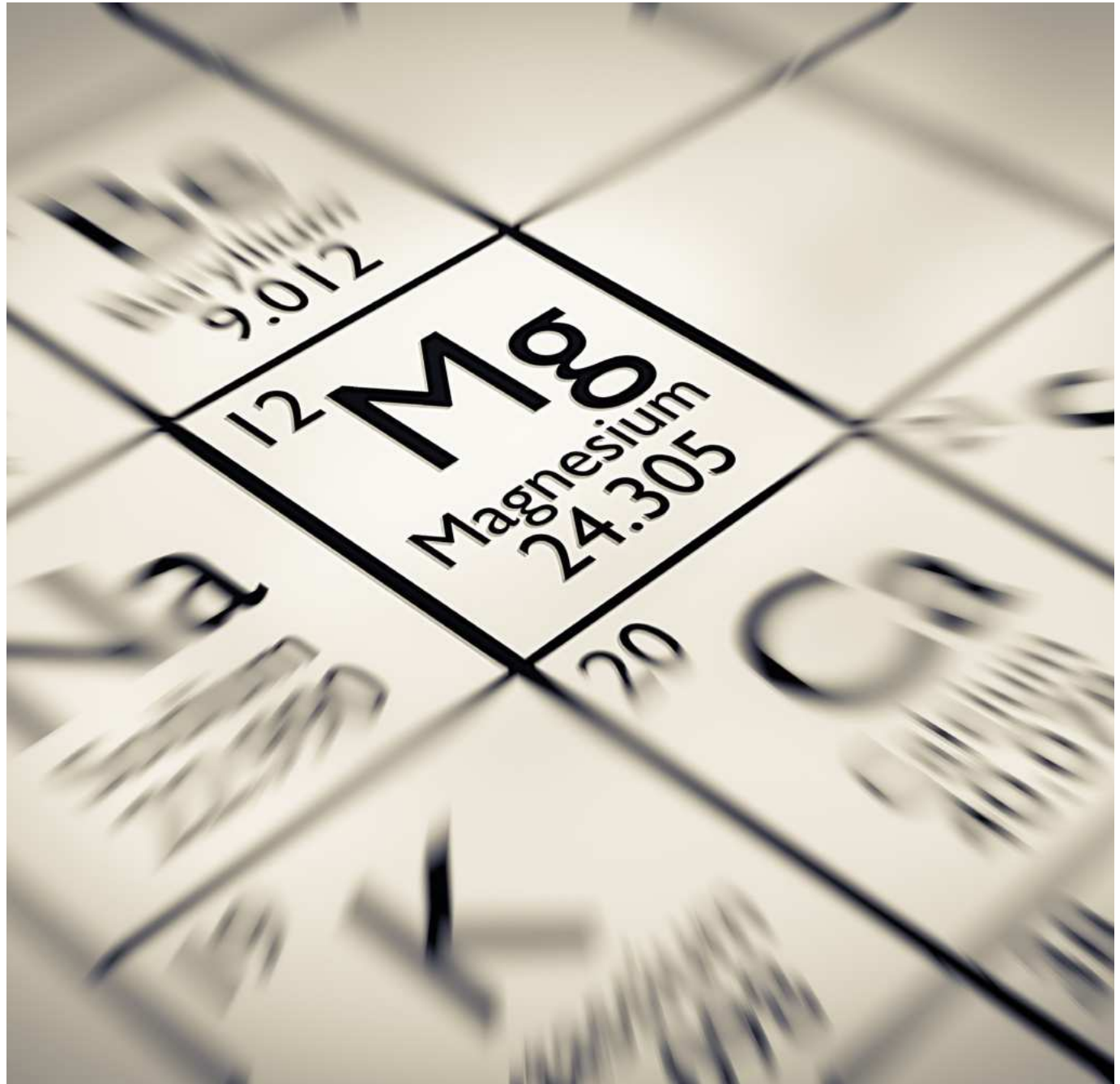
Magnesium is an essential mineral required for over 300 reactions in the body, such as making proteins and boosting mood, regulating sleep, and keeping our skeleton strong. It is also required for energy production and normal heart rhythm.

Magnesium supplements can help to bridge the gaps in our diet that can naturally occur, and there are a few tell-tale signs of deficiency to look out for:

■ **Poor sleep** – magnesium can help you sleep better. This is because the body needs magnesium to maintain a state of rest. Magnesium deficiency can lead to restless muscles that keep you awake at night. One of the benefits of magnesium is that it helps the brain receptors to switch off before you go to sleep. Without enough, you might not get off to sleep easily. Some people aid their sleep with sleep supplements to encourage a full night's rest.

■ **Fatigue** – people suffering with magnesium deficiency may feel fatigued and tired. One magnesium benefit is its work alongside calcium. Both regulate muscle movement, and not getting enough can result in a build-up of lactic acid. This leaves the body open to muscle tiredness and soreness. Although tiredness is a sign of many different health issues, it could mean you need more magnesium.

■ **Heart palpitations** – these symptoms are mild in most cases. Magnesium deficiency can cause pauses between heartbeats and the feeling of an irregular heartbeat. Magnesium benefits your nerves, so not getting enough could lead to nerve damage. A sense of tingling in the hands, feet, and face could also be a sign of magnesium deficiency.





MAGNESIUM FOR ALL

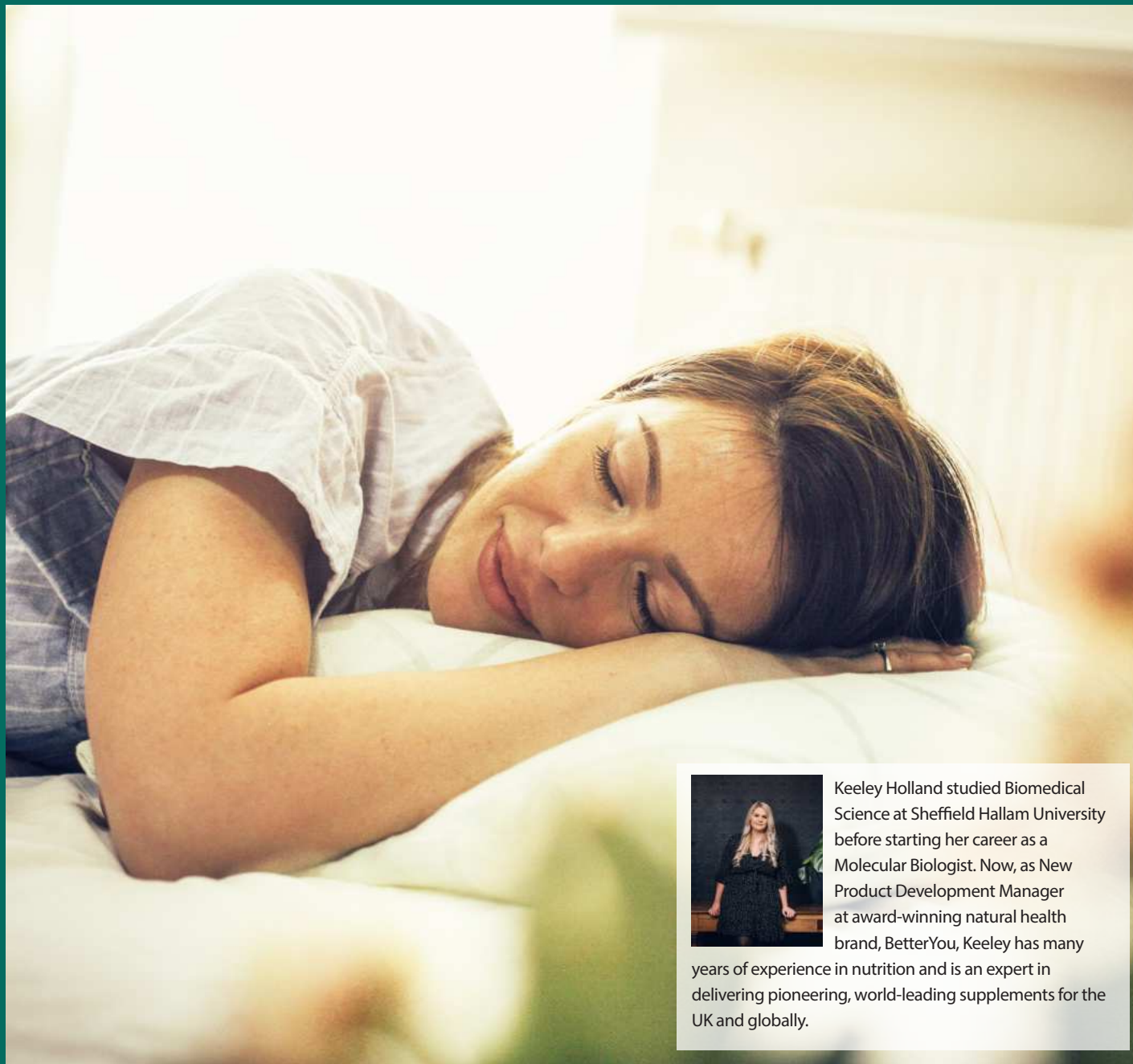
Now, more than ever, it is imperative that people are aware of the common vitamin or mineral deficiencies which can affect our ability to sleep, such as magnesium. An important factor in how our body manages its sleep cycle, a magnesium deficiency can affect not only our ability to fall asleep, but the quality of sleep we're able to achieve. The mineral promotes relaxation of the muscles by binding to and stimulating the gamma-aminobutyric acid (GABA) receptors in our brain and nervous system, which helps the brain switch off in preparation for sleep.

Adding a supplement or transdermal magnesium product to our daily routines will help to elevate levels of this important nutrient, thus promoting overall wellbeing, relaxation and helping to overcome those dreaded sleepless nights. Supplementation will elevate the body's level, helping people to fall asleep and remain asleep for longer. Studies have shown magnesium can also reduce anxiety as supplementation relaxes the body by attenuating the adrenocortical hormones, such as the stress hormone, cortisol.

Those who suffer with chronic headaches and fibromyalgia may benefit from magnesium supplementation as deficiency appears to be more common in people with these conditions, and supplementation can help reduce the intensity of fibromyalgia symptoms due to being a potent muscle relaxant. Magnesium also plays a huge role in women's health, from supporting muscle and bone health to prevent osteoporosis, to helping alleviate muscle cramps, anxiety, mood changes and hot flushes through boosting calming neurotransmitters.

Around 10-30 per cent of postmenopausal women experience osteoporosis (gradual decline in bone density), so a top up of magnesium may help decrease the progression and support bone health.

Low magnesium levels have been linked with cardiovascular risk factors, including high blood pressure, high cholesterol and arterial plaque build-up. It helps to keep blood pressure normal, heart rhythm steady and maintain nerve and muscle function. Recent studies have also highlighted the benefits of magnesium sulphate for the alleviation of severe asthma symptoms due to magnesium having anti-inflammatory effects and being a bronchodilator. There is also added benefits here for those that aren't asthmatic but would benefit from increased bronchodilation during sporting activities to make breathing easier and widen the airways.



Keeley Holland studied Biomedical Science at Sheffield Hallam University before starting her career as a Molecular Biologist. Now, as New Product Development Manager at award-winning natural health brand, BetterYou, Keeley has many years of experience in nutrition and is an expert in delivering pioneering, world-leading supplements for the UK and globally.

ANP Association of
Naturopathic
Practitioners

SUPPORTING PRACTITIONERS



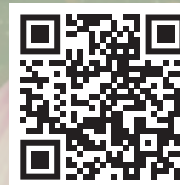
Who can join? ■ Nutritional Therapists ■ Herbalists
■ Acupuncturists ■ Homeopaths ■ Natural Chefs

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

Postgraduate & Short Courses Full & Part-time studies

Study in class or online

Colleges across Ireland and the UK



01 878 8060

www.naturopathy.ie

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

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 listing on our Searchable Public Database of member therapists
- Access to the Natural Medicines Comprehensive Database
- Special discounts and promotions including Testing Services, IHCAN and many CPD recognised events
- Annual Conference in partnership with IHCAN
- Options to register with CNHC and the GNC
- Full members automatically become GNC Associate Naturopaths
- Unique opportunity to upgrade to Registered Naturopath (ND)

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

nna
NATUROPATHIC NUTRITION ASSOCIATION

The Rhythm movement

Maya Qureshi founded Rhythm Nutrition in the midst of the pandemic with a focus on joint health. Here, she tells *Nutrition I-mag* how personal experience inspired her to start the business, and how she is developing strong relationships with practitioners.



As with many people who enter the world of nutrition, Maya Qureshi's journey began after a personal experience. Discovering the power of nutrition to help with her husband's health issues, she soon saw how powerful nutritional interventions could be, and so set her on the journey to starting Rhythm Nutrition.

Maya, a registered functional medicine health coach, explained: "The original concept of Rhythm Nutrition came about five years ago when my husband began developing chronic joint pain in his early 30s. He was and still is active in sports and was frustrated that he couldn't play as much or as often as he used to, and so the foundation for our first product, Deflame, was laid. He behaved as if he was past his prime and his best days were past him. Since he wasn't training as often as he used to, I could see his health deteriorating, and although I couldn't see it at the time, I now realise how much it was affecting his mental health too.

"So, I set out to find a solution and came across functional medicine,

food, nutrition and herbal medicine. I became obsessed – there was this whole world I knew little about. I read papers and studies, listened to podcasts, and read books."

Then, finding that there were many other people out there struggling with the same issues but finding nothing effective (outside of conventional medicine) that specifically addressed the problem of joint pain and inflammation, Maya began to research, learn and develop a product that would solve these problems.

"We spent the first three years researching, developing and testing our first product, and in December 2020, in the middle of the pandemic, we launched Deflame and officially began trading," she added.

And one of the most important areas of the business is the company's focus on practitioners.

"From the beginning, I knew this was a relationship in which I had to work and build trust on," Maya advised. "As you can imagine, in a highly

competitive market where new products come out every day and big well-known supplement brands have the means to market their products everywhere, it is very difficult for small companies like ours to be noticed and recognised by practitioners.

"People use products based on recommendations and I knew it was important for me to reach out to as many practitioners as I could and get them to try out our product. So that's what I did! As soon as we launched Deflame, I started contacting practitioners and telling them about our story, mission and about our first product, Deflame, (we only had one product at the time). As a small start-up, you really have to work hard to connect with and market to the practitioner network.

"In terms of how we support practitioners, we try our best to collaborate in many ways for our blog and social media events. We are currently working with a few practitioners at putting together some master classes for our customers."

THE RHYTHM ETHOS

While joint health has been the company's initial focus, there are some founding principles that go beyond just this area.

Maya explained: "The main ethos at Rhythm Nutrition is to provide preventative nutrition for longevity, and we started this journey by focussing on joint health. After all, movement is medicine and one of the most important pillars for longevity. However, when people suffer from joint pain, they understandably move less, which leads to further deterioration of their physical and mental health, reducing their health span and therefore lifespan. My own grandmother spent the last 10 years of her life in bed as she struggled with severe joint pain after being diagnosed with osteoarthritis. From the time she was diagnosed, her ability to stay active and her mood deteriorated over time, which was hard to watch.

"So, our mission at Rhythm Nutrition is to help people (including ourselves at RN) move better for as long as possible by creating the highest quality products and offering them in the best, cleanest formats that are effective and work!"

But, she adds, that it needs to be a holistic approach, which forms a big part of the company's approach when developing products.

"Relying on supplements alone should never be the solution when it comes to addressing joint pain. Adopting an anti-inflammatory lifestyle is equally important, which is why we offer educational content to our customers through our blog and newsletter to help them make small lifestyle changes, slowly, that will improve their symptoms further," Maya explained.

If we look in greater detail at the specifics of the brand, and the products, Maya says there are some specific USPs in terms of the offering.

"As a brand, I would say our USPs are:

■ **Focus:** Unlike many other supplement companies out there, we do not offer a range of vitamins and minerals with just one ingredient. Instead, we are very focussed on developing functional products, with multiple ingredients that are effective and improve joint health.

■ **The quality of our ingredients:** We make sure we source the best ingredients, adhere to ethical standards for production, and pay their employees, which usually comes at a cost. This was a difficult decision for a small start-up like ours with limited resources, but we are happy to have made this choice.

■ **Technology:** We use different technologies for each of our products, taking into account two things: the limitations of ingredients and our body's ability to digest ingredients in certain formats. For example, we know that curcumin, in particular, is extremely notorious when it comes to absorption in our bodies. That's why Deflame was developed with liposomal technology, which allows curcumin to be water-soluble and the ingredients to go directly into the bloodstream, where the nutrients are optimally absorbed."

Still a small family business, there is Maya, who has a background in accounting and finance, as well as being a functional medicine coach, and Yasir, her husband, who handles the operational side of the business. There are also four other employees who help with the day-to-day operations, while the company also works with nutritionists creating educational content for the newsletter and blog.



BUILDING THE BUSINESS

Launching in the midst of a pandemic would have brought its own challenges, but how has the company developed since those early days?

"Rhythm Nutrition is a fairly small and young company. The plan was to launch in April 2020, which is when the UK and the rest of the world went into lockdown, and I can tell you that it was one of the most stressful times in my life," Maya admitted, adding: "I had invested years of my time researching and testing the product with food scientists and nutritionists and spent most of my savings on the first production run before the world went crazy and I got cold feet."

"When we were ready to launch the product, I looked at what was happening and thought that my potential customers would be so busy with more important things that buying an innovative health product would be the last thing on their minds – how wrong I was!

"I know it seems obvious now, but I did not consider that health and wellness became everyone's top priority, and that then, more than ever, it was time to launch a product that could naturally help fight inflammation. So, I decided to go to market in December 2020, and have not looked back since. Fast forward to today, Deflame has won two prestigious gold awards as voted by nutritionists in the country, and we have launched two more products, with at least two more products planned for launch later this year."

The product range stands at three, all focused on joint health.

"Deflame is our first and therefore our flagship product, which, as the name suggests, is designed to fight excess inflammation in the body," Maya explained. "It contains four of nature's most powerful anti-inflammatory and antioxidant ingredients (curcumin, ginger, vegan omega 3 from seaweed, and Indian frankincense) that help to address excessive inflammation and therefore pain in the body, naturally."

"Think of it as a natural, plant-based painkiller, only this one does not destroy your intestinal lining (vs OTC painkillers like Ibuprofen) when used regularly. Deflame has won two gold awards –

Nourish 2021 and IHCAN 2022 – and I believe that the success of this product lies in the unique blend of these powerful ingredients combined with the liposomal technology."

In December 2022, Rhythm Nutrition launched two more products – Complete Repair Collagen, and Soothe.

Maya advised: "Complete Repair Collagen is the first personalised collagen in the country (I do not know of anyone offering personalised collagen, even outside the UK) that allows potential customers to decide what they want in their collagen blend. Our collagen is an unflavoured, grass-fed hydrolysed bovine collagen powder and we offer types 1, 2 and 3, as well as the option to add superfoods like MCT and functional mushrooms."

"Most collagen brands on the market that target the beauty market mainly offer type 1 collagen. In addition to type 1, which is good for hair, skin, nails, bones, ligaments and tendons, we also offer type 2, which is great for strengthening joint cartilage, and type 3, which improves gut health. Potential customers can also add functional foods such as MCT and mushrooms to their blend."

"We are really excited to launch our Vegan Collagen. Most vegan collagens on the market are 'boosters' that contain superfoods, vitamins and minerals that boost the production of collagen in our body, which doesn't always work due to lifestyle factors, our body's ability to absorb nutrients optimally, as well as ageing. Our Vegan Collagen is a 100 per cent plant origin collagen providing amino acids in the same proportion as those found in animal collagen."

Also in the range is Soothe, a nutrient-enriched candle that combines the power of natural essential oils such as jasmine, coconut, lavender, argan, avocado and some others, that is absorbed by the skin with the relaxing and pain-relieving effects of aromatherapy. Designed to be applied topically for providing joint relief, this candle is a twist on conventional massaging candles.

When it comes to future development of the range, there is much that the team takes into account.

"For us, the initial concept for a new product usually comes from



communicating with our existing customers. Understanding their problems leads to the development of new products. However, the most important criteria are what functional benefit will the customer experience, rather than developing products with single ingredients like turmeric or omega 3," Maya explained. "That's why you'll find that all of our products have functional names – Deflame, Complete Repair and Soothe. They all serve a purpose with joint health."

"Other important criteria they should meet are high quality ingredients, reasonable shelf life for us and our customers, providing products in the format that's fun and versatile, third party tested and more."

And as we look ahead to the future, Maya says she is constantly making plans: "For this year, we hope to launch at least one more product called Forcefield, after we launch Vegan Collagen next month. In addition, as mentioned earlier, we want to work with various experts from different fields to offer our customers some master classes focussed on joint health and longevity. We are currently still in the process of planning and creating content, and I hope to be able to provide more information soon."





Inspiring and educating

As a brand dedicate to practitioners – both qualified and studying – BioCare details its evolving educational offering.



education.”

With even more practitioner support and education planned for 2023, including new protocol-based face to face events, we caught up with Marta to find out more.

Q You’ve been at BioCare for eight years, tell us more about that:

I’m a Nutritional Therapist and have been working in the BioCare Clinical Nutrition department for eight years, four of which I’ve been Head of Clinical Nutrition. I keep a relatively low profile – for my own health and personal growth, I stay off social media, which is why you may not see me around as much as you may see my fellow colleagues in the industry. But for years, I’ve been at seminars, colleges, and at the end of the phone; learning, educating, mentoring, and talking to lecturers, practitioners, and the public. All that gives me a unique insight and ability to lead an expert team and devise a unique yet practical education programme.

I get to share my knowledge and perspective with practitioners at our events, but more importantly, my team are my voice, and our customers are our voice and this, to me, is much more powerful than me on my own.

Q How important is education to BioCare, to you and your team?

Education is the heart and soul of BioCare. It is conferences, seminars, webinars, talks, but it’s also internal training for staff, our partners, and everyday conversations. A lot of our customers know us because of our education, and we are proud of it. But we’re certainly not sitting on our laurels: we want to do more and better. That’s why we challenge ourselves all

the time and collaborate with industry experts so we never stand still.

Q Tell us more about your vision for BioCare education:

The nutrition industry is an exciting and empowering place to be, but it can also be a lonely and confusing place, with online work, new research developments, conflicting views and opinions about nutrition and supplements. I believe our role is to make sense of it all and distil it into well-researched but more usable and practical information through our extensive education programme, and online resources, and being the trusted experts that people can lean back on.

My vision is to grow the nutrition team further and to expand our services, adapting it to the needs of our customers. That’s why the plan is to diversify our support and reach even more customers who are struggling with their health, and offering more product training for practitioners and retailers.



Q What’s new for 2023?

On top of continuing our hugely popular UK-wide seminars and webinars, we are launching a new series of face-to-face events, The Green Tea Break, in new locations. Our popular Green Tea Break webinars started amid the Covid pandemic, with the aim of keeping our practitioners and retailers informed, entertained and supported in those challenging times. Now that many are back in clinics or on the shop floor, the ‘new normal’ is posing brand new

challenges. With even more work and education happening online, we wanted to bring the nutrition, product training and a sense of community to your local area.

Ultimately, we really care about sharing our knowledge and expertise for free, connecting with more practitioners, more regularly in even more locations – because it’s what the BioCare story is all about.

To find out more or book a place, visit biocare.co.uk/education, or talk to Marta and her team on 0121 433 8702 or email clinicalnutrition@biocare.co.uk

BioCare was founded on the basis that the business really cares about seeking a greater understanding of health, about finding the answers and helping practitioners to find them too.

Sharing this knowledge is at the heart and soul of BioCare, as Marta Anhelush, Head of Clinical Nutrition, explained: “A lot of practitioners know us because of our education and we are proud of it, but we are constantly seeking to challenge ourselves, thinking differently, creativity and practically to always provide the very best support and education.

“In 2022 alone, we delivered over 23 seminars and six webinars, connecting with over 1,300 practitioners over the course of the year, and responded to almost 25,000 nutrition queries over phone, email, live chat and social media, which is an incredible achievement and a testament to how committed we are at providing our customer unparalleled support and

BioCare Education Series 2023

We are back with our hotly anticipated new seminar programme! This time we're focusing on the very current topic of ageing, but done our way, giving you the complex theory in a very practical and clinically relevant format.

We're continuing with locations around the UK, and if you can't make the in-person events, we have some great online content too. Either way, we can't wait to see you!



18th May	Cardiff Metropolitan University, Llandaff Campus	Cardiff	BOOK HERE
24th May	Midlands Art Centre (MAC)	Birmingham	BOOK HERE
6th June	Exeter Library	Exeter	BOOK HERE
7th June	Penny Brohn Centre	Bristol	BOOK HERE
13th June	Louis Fitzgerald Hotel	Dublin	BOOK HERE
4th July	York Medical Society	York	BOOK HERE
5th July	Apex Grassmarket Hotel	Edinburgh	BOOK HERE
19th Sept	Antenna Nottingham	Nottingham	BOOK HERE
21st Sept	Pendulum Hotel	Manchester	BOOK HERE
3rd Oct	Leonardo's Hotel - formerly Jurys Inn	Brighton	BOOK HERE
21st Oct	Cavendish Conference Centre	London	BOOK HERE
8th Nov	University of Reading, Whiteknights Campus	Reading	BOOK HERE
14th Nov	Churchill College	Cambridge	BOOK HERE

What our past attendees think...

"Amazing seminar! The speakers did a fantastic job with their extensive knowledge, it was so well explained."

"BioCare still hit the right balance of technical and practical. It's rare. I'm really glad you've maintained this."

"The adaption concept is brilliant and helps piece together lots of previous knowledge in a way that is clear to understand. This will serve as a very useful tool in helping map out the therapeutic journey of a client, directing support to the cogs that require priority in the often complex makeup of an individual case."

Circle of Life - LIVE SEMINAR

with Alessandro Ferretti & Marta Anhelush. All seminar times are 10.00am - 3.30pm.

It's a circle of life, and it moves us all, through despair and hope...

We are living longer but are those final decades of our life spent in a state of health or disease? Are our bodies equipped to deal with the challenges of the modern world?

We begin to die the moment we are born... The moment the egg meets the sperm, we enter an enormous phase of growth and development, all through to puberty. As soon as we move into our reproductive years, we face a slow decline in function and structure. The speed of that decline is heavily influenced by the interactions between our genes and our exposome which determine how well we age. In this unique seminar, we will focus on the key factors influencing ageing, zooming in on neurodegeneration, cellular health, hormonal shifts, and structure.

Using an in-depth case study, we will take you on a journey through those key clinical examples, whilst also showcasing some of the best genetic and metabolic testing available.

4 hours applied CPD (BANT, ANP, NNA, NTOI). Drinks and snacks provided; lunch available to purchase locally.



free

Each attendee receives a handout including practical protocols, 4 hours applied CPD, a free product and 15% exclusive product discount.

To find out more about our upcoming events or to book a place, visit: biocare.co.uk/education, or contact us on 0121 433 8774 or email education@biocare.co.uk

Reconnecting with food

Take inspiration from the new book, *Recipes to Reconnect*, to help re-establish your relationship between nature, food and self.



Oat and seed 'porridge' loaf...
by Harriet Mansell



Fatima's bone broth...
by Anna Boglione



Lemon, ricotta, vanilla cheesecake with malt,
almonds and rhubarb cordial...
by Jeremy Lee



Oat and seed 'porridge' loaf... by Harriet Mansell

Makes 2 loaves, serves up to 10

Cooking time: One hour

This loaf is packed full of protein and is designed to really fill you up for a long period of time, whilst delivering essential nutrients. You can eat a slice of this by itself as a snack, for breakfast or to accompany a soup and it will really satisfy hunger and deliver on nourishment, while offering a slow release of energy.

Ingredients:

- Use a 500g (1lb 2oz) yoghurt pot as your measure
- 1 pot of plain yoghurt
- 1½ pots of mixed seeds of your choice
- 2 pots of oats
- 3 pots of eggs
- 1tbsp bicarbonate of soda (baking soda)
- 1tsp table salt
- A good splash of milk, plus more to adjust the consistency

Method:

- Preheat the oven to 180°C (350°F), Gas Mark 4.
- Find a large bowl, add all the ingredients and stir together. You need to add enough milk to create a porridge-like consistency. This recipe is fairly forgiving, so no need to worry if it's too thick or not thick enough – just go for a porridge-like consistency.
- Allow it to sit for a couple of minutes for the oats to absorb the liquid and possibly then adjust the consistency further with another dash of milk. Line two small loaf tins with parchment paper and divide the mix between the two tins.
- Bake in the oven for one hour or until the loaves are firm to the touch.



FATIMA'S BONE BROTH



LEMON, RICOTTA, VANILLA CHEESECAKE WITH MALT, ALMONDS AND RHUBARB CORDIAL



Fatima's bone broth... by Anna Boglione

Serves 8-10

Cooking time: 4 hours-plus

Fatima is the power that keeps my family home in motion: flowers appear in your room when she knows you're coming home and hearty meals upon the stove. I have long suffered with inflammatory flare-ups and the gelatine and collagen released from animal or fish bones can help soothe and repair the intestinal lining. Studies have shown collagen to be an effective remedy for people suffering with inflammatory illnesses, such as arthritis. This recipe also uses white cabbage, which is high in L-glutamine and has been known to help repair the gut lining.

Ingredients:

- 4 chicken carcasses
- 1 large onion
- 4 carrots
- 1 leek
- 1 whole celery
- ½ white cabbage
- 2 fingers of peeled fresh turmeric
- 2 fingers of peeled fresh root ginger
- 8 litres (14 pints) water

Method:

- Place the carcass and bones in a baking tray on parchment paper and roast in the oven on a high heat for 20 minutes. This builds and deepens the flavour within the broth. If you are using bones from a Sunday roast, ignore this step. I often put my chicken carcass in the freezer, ready to be

turned into broth when I need it.

- Roughly chop the veg and place in a large stockpot, then add the turmeric and ginger. Pour in the water. This should cover the chicken, but the bones shouldn't be floating around; they should be snug with the veg. Bring to a boil before reducing to a simmer. For the best gut healing results, cook for eight hours. The liquid will evaporate, so top it up if and when needed. You can leave in a slow cooker or on the stove over a low heat. If you're cooking it on the stove and can't stay with it for eight hours, turn it off and pick it up again when you get back. Don't go out and leave your broth cooking!

- When your broth is finished cooking, let it cool before sieving, holding back the bones and veg. The broth is now ready to use in other dishes, or to be simply drunk to help soothe your gut.

Variations

- **Bone broth with veg:** Once you have your broth, you can add anything to it. I like to add cocco bianco beans and lots of green veg. If you are using dried beans, soak them the night before, then cook them till they start to soften, throwing in your veggies at the end.
- **Miso broth:** After your broth is cooked, add two tablespoons of miso to one litre (1¾ pints) of broth to make a miso broth. I like to add a little more ginger, tamari sauce and chilli too. Here, I have added a soy-cured egg yolk and shiitake mushrooms.



OAT AND SEED
'PORRIDGE' LOAF



LEMON, RICOTTA,
VANILLA CHEESECAKE
WITH MALT, ALMONDS AND
RHUBARB CORDIAL



Lemon, ricotta, vanilla cheesecake with malt, almonds and rhubarb cordial... by Jeremy Lee

We walked past the brewery and scooped up a few bowls of spent brewer's malt and this we mixed with nuts, seeds and honey, to bake crisp and shatter over the ricotta, which would have been served with rhubarb had the children not scoffed the lot!

Serves 6

Cooking time: One hour

Ingredients:

Rhubarb:

- 5 rhubarb sticks
- 2 strips of orange peel
- 1 vanilla pod, split and seeds scraped out
- Zest and juice of 1 orange
- 3-4tbsp honey or maple syrup
- 300ml (½ pint) water

Cheesecake:

- 100g (3½ oz) blanched almonds
- 100g (3½ oz) pine nuts
- 100g (3½ oz) sunflower seeds
- 100g (3½ oz) spent brewer's malt or flour or rolled oats
- 100g (3½ oz) butter
- 2tbsp clear honey
- 300ml (½ pint) double (heavy) cream
- 750g (1lb 10oz) ricotta finely grated zest and juice of 1 lemon
- 1 vanilla pod, split and scraped

Method:

- Preheat the oven to 150°C (300°F), Gas Mark 2.
- Trim and chop the rhubarb and add to a heavy-based pan with the orange peel, vanilla pod and seeds, three to four tablespoons of honey, and the water. Bring to the boil and simmer until the rhubarb is fully softened. Pour into a sieve over a bowl, let drain and leave to

one side. Should there be rhubarb enough left after straining, serve alongside or keep to eat with breakfast the next day.

■ Grind the almonds, pine nuts and sunflower seeds into a coarse crumb. Add to this either the malt or flour along with the butter and carefully work to a fine crumb. Line a baking sheet with parchment paper, evenly spread the crumble over the paper and dot with a tablespoon of honey. Bake for about 15-20 minutes, then remove from the oven and cool.

■ Pour the cream into a large bowl and whisk until it turns into soft peaks. Tip in the ricotta, remaining honey, lemon zest, juice and scraped vanilla seeds. Mix well, spoon into a handsome bowl, cover and refrigerate.

■ When ready to eat, pour over enough rhubarb cordial to cover the ricotta mix, break the crumble over the bowl and serve.



FATIMA'S BONE BROTH



OAT AND SEED
'PORRIDGE' LOAF



Recipes to Reconnect by Anna Boglione, Kyle Books.
Photography: Anna Boglione.

I-Mag giveaways

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



RHYTHM NUTRITION COLLAGEN REPAIR



The goal at Rhythm Nutrition is to provide customers with high quality, clean, functional products with a focus on joint health that deliver results, without compromise. Unlike most collagen products on

the market that predominantly cater to the beauty market, Complete Repair is a personalised, grass-fed hydrolysed bovine collagen that contains types I, II and III. It is designed to repair and maintain joint tissue by supporting the integrity and strengthening of cartilage and joints, while also promoting healthy hair, skin and nails. You can also add functional superfoods like MCT (for energy) and functional mushrooms such as lion's mane (for focus), reishi (to regulate mood) and chaga (for anti-ageing) to your blend.

I:Win: We have three to give away.



Nature's Answer Mullein Leaf Liquid Herbal Extract

Nature's Answer Mullein is a concentrated (600mg dried extract per 2ml serving) alcohol-free liquid herbal extract, which is created using carefully controlled extraction techniques to capture the Holistic Balance. This retains mullein's natural active components and avoids commonly used extraction techniques, such as harsh solvents or heat. Mullein has been used by cultures across the world for centuries as a respiratory remedy and works by helping protect mucous membranes to prevent allergic reactions during hay fever and allergy season. The leaves of the mullein plant are naturally rich in an abundance of plant compounds including flavonoids, saponins, tannins, mucilage, coumarins and glycosides, plus ascorbic acid (vitamin C), and several essential minerals.

I:Win: We have five to give away.



CYTOPLAN CYTOPROTECT JOINT HEALTH

CytoProtect Joint Health is a unique formulation from market-leading supplement brand, CytoPlan, designed to support overall joint health but may be especially indicated for those with active lifestyles or ageing joints. It has been formulated using Peptan 11m powder, a hydrolysed matrix of type II collagen and glycosaminoglycans (chondroitin sulphate and hyaluronic acid). CytoProtect is a range of products backed by a combination of scientific and clinical research, and clinical experience.

I:Win: We have 10 to give away.



NutraTea bundle

Nutrition I-Mag has teamed up with NutraTea to offer three lucky readers the chance of winning six unique herbal blends that includes two of the following: NutraBone, NutraDefence and NutraLust. NutraTea specialise in functional herbal teas that have been expertly blended to target specific health issues. Utilising 100 per cent active botanicals that have been sustainably sourced worldwide and with no excipients, each biodegradable tea bag can be reused up to three times throughout the day.

I:Win: We have three bundles comprising six products to give away.

NEW FOR 2023

Integrative Healthcare and Applied Nutrition

IHCAN
magazine

PODCAST

ON ALL MAJOR PODCAST PLATFORMS

**LISTEN
FREE**

EPISODE FIVE



KIRSTEN CHICK

PRESENTER



DEBBIE COTTON

MA, BHSCI, AD.DIP.NAT

PRESENTER

'MENOPAUSE WISDOM'

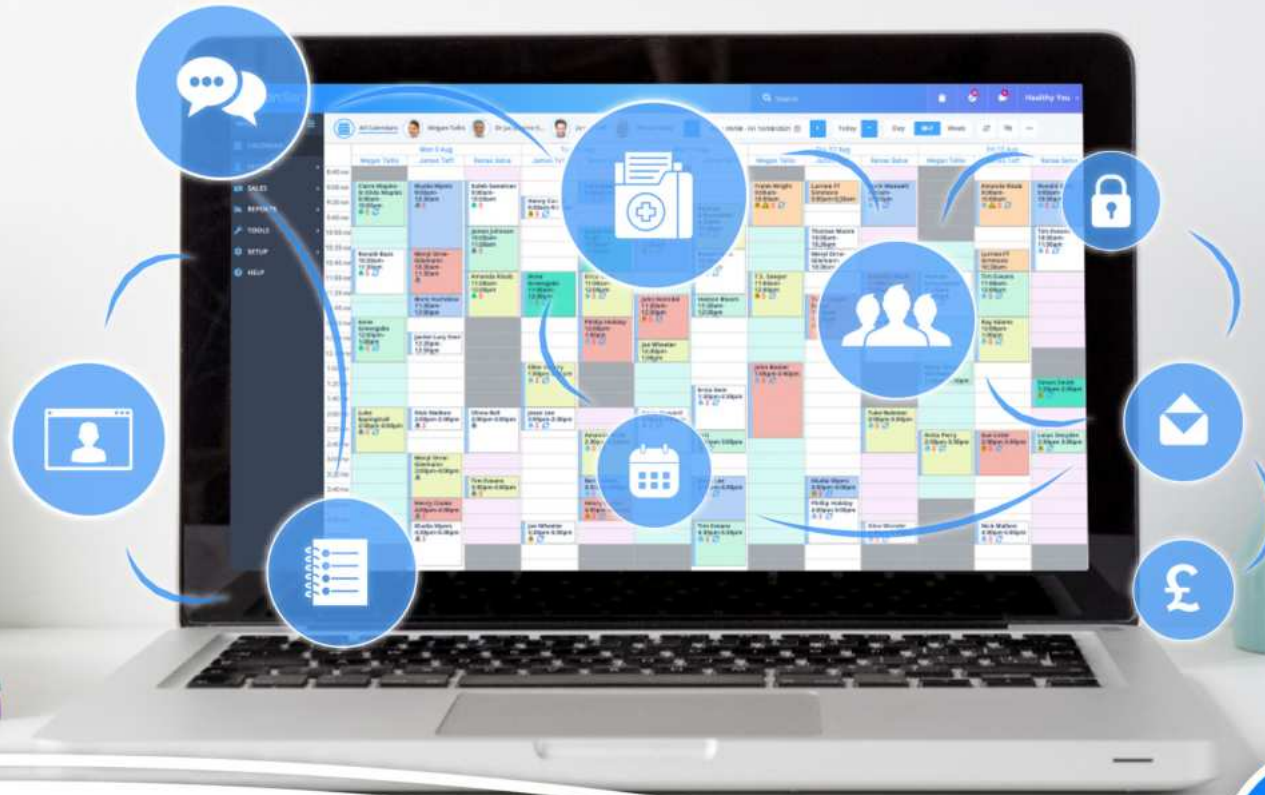


**Find us wherever you listen to your
podcasts or at
ihcan-mag.com/podcast**

Sponsored by



WORK SMARTER, NOT HARDER



The All-in-One System **L**oved by Nutrition Professionals

Spend more time taking care of clients and less time on admin. Power Diary includes everything you need to manage patients, staff, and finances - right at your fingertips. Featuring online appointment scheduling, SMS messaging, SOAP notes, Telehealth, payment integrations, an in-platform practice operations manual, and more.

Curious? Join a [Live Demo Today](#).

From
£4
Per Week
(With Offer)

**START A FREE
TRIAL TODAY**
To Get
50% OFF!
For 6 Months

powerdiary