

Nutrition I-Mag

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RESEARCH AND EDUCATION FOR TOMORROW'S PRACTITIONER

AUTUMN 2025

Collagen connection

Why we need collagen and how to source the right supplements

Guide to IMMUNE HEALTH

How to strengthen the immune defences

Nutrition and the menopause

The critical role of nutritional health during this life stage



READ NUTRITION I-MAG AND REGISTER
YOUR SELF-DIRECTED CPD CREDITS



PLUS: HOW TO COOK LOW FODMAP FOODS ■ IHCAN CONFERENCES – BOOK YOUR PLACE AT THE LAST EVENT OF 2025 ■ SHATAVARI SUPPLEMENTATION – AN UPDATE ■ NPD LAUNCHES ■ READER GIVEAWAYS

Shaping a
healthier society

BioCare®

Metabolic Resilience:

Navigating Weight & Energy Challenges
in a Changing Clinical Landscape

An advanced practitioner conference for nutritional therapists, health care practitioners, and integrative health professionals.

At this conference, a panel of leading clinical and industry experts will explore:

- Mechanisms, benefits, and risks of new weight-loss medications, including clinical management strategies
- The role of female hormones in metabolic health and weight regulation across different life stages
- Blood glucose balance: testing, genetic influences, and practical clinical applications
- Thyroid function and its influence on metabolism, energy, and weight
- Sustainable strategies for improving metabolism, energy, and weight through diet, lifestyle, and mindset interventions

You will receive:

- A full day of CPD approved lectures from industry experts (5 hours applied for BANT, ANP, NNA, NTOI)
- A goody bag including a free full-sized BioCare product, printed handout as well as exclusive offers and goodies from our exhibitors (The Natural Dispensary, Amrita Nutrition, LifeCode GX and Debbie Grayson).

Schedule

01

Navigating The Weight Loss Medication Minefield with Debbie Grayson

02

The Midlife Metabolic Puzzle: Hormonal Changes from Perimenopause Through Menopause with Tanya Borowski

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Practical Weight Loss: How to Set Realistic Expectations and Use Proven Dietary Tactics in Practice with Kat Bright

04

Blood Glucose Panel with Emma Beswick, Dr Abbi Lulsegged, Alessandro Ferretti

05

Thyroid Health with Dr Abbi Lulsegged


Date: Saturday 11th October


Location: Cavendish Conference Centre, London

Time: 9:00-17:30

Book today

 metabolicresilience.eventbrite.co.uk

 0121 433 8774

 education@biocare.co.uk



*Early bird £99 until 11th September, then £129

WELCOME



Practicing Nutritional Therapists will, in our modern world, see clients with a wide range of health complaints, many of which have elements of modifiable factors involved. The range of issues is shifting as we see concerning rates of consumption of UPFs, rises in obesity rates (especially among children) and stress levels appearing at an all-time high.

Something that can be affected by all of the above is the menopause, a health area which, while far more widely discussed these days, is still a huge issue for the millions of women experiencing the process at any one time. Indeed, when you consider that one billion women globally are going through the menopause (the effects of which can be huge), it's clear more needs to be done to educate women around the steps they can take through nutritional protocols at this time.

Being prepared for clients seeking nutritional support in this area is critical, and especially as students progress through their studies and move into practicing as an NT. And so, in this issue of *Nutrition I-Mag*, we bring the spotlight firmly on the menopause, gathering an expert panel of leading nutrition experts, who explain in detail the process, the vast symptom range, why these occur and, importantly, the current nutrition protocols that are well-evidenced to work. And remember, simply by reading this magazine, you can top up valuable CPD points, as well as enhancing your knowledge base.

Also helping to support your learning is our ongoing programme of educational events through the IHCAN Summits; we have one more live event for 2025, taking place on November 15 at 155 Bishopsgate, London. Students can save 10 per cent off the ticket price, and with a line-up including Lucinda Miller, Dr Victoria Sampson and Alex Wilber, PhD, it is an event not to miss. You can buy your ticket at www.ihcansummit.co.uk

Rachel

RACHEL SYMONDS, EDITOR



MEET THE TEAM

EDITOR

Rachel Symonds
rachel.symonds@targetpublishing.com

CONTRIBUTORS

Lorna Driver-Davies, Alison Cullen,
Julie Weston

SALES & PUBLISHING DIRECTOR

Ruth Gilmour
ruth.gilmour@targetpublishing.com

KEY ACCOUNTS DIRECTOR

Abigail Hays
abigail.hays@targetpublishing.com

SALES MANAGER

Emma Steele
emma.steele@targetpublishing.com

DESIGN/PRODUCTION

Charlotte Weatherley
charlotte.weatherley@targetpublishing.com

MARKETING DIRECTOR

James Rix
james.rix@targetpublishing.com

ACCOUNTS

Alison Barnes
alison.barnes@targetpublishing.com

MANAGING DIRECTOR

David Cann
info@targetpublishing.com

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

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Nutrition 
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2. Understand the underlying technologies and the practicalities of sample collection.
3. Interpret test results and recognise patterns in microbial imbalance and host response
4. Compare the clinical utility of qPCR and shotgun testing methods for different patient presentations.
5. Develop evidence-informed treatment plans using antimicrobials, probiotics, and supportive strategies.



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access and you'll receive
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OUR CONTRIBUTORS

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



ALISON CULLEN

Alison Cullen is an experienced nutritional practitioner with a clinic in Ayrshire, Scotland. She currently combines running her clinic with the role of Education Manager for A Vogel. Alison lectures, trains and writes extensively on health issues, which she finds endlessly fascinating.



LORNA DRIVER-DAVIES

Lorna Driver-Davies has 14 years of expertise in gynaecological and hormone nutritional therapy and functional medicine. She has specialist experience in endometriosis/adenomyosis, perimenopause, menstrual cycle irregularities and botanicals and herbs for female hormone support. She is a regular speaker for surgeons and specialist nurses for the British Society for Gynaecological Endoscopy. She is Head of Practitioners for Wild Nutrition's practitioner education community and services.



ELOUISE BAUSKIS

Elouise Bauskis is a Registered Naturopath, Nutritional Therapist and Herbalist with more than 20 years of clinical and industry experience. She provides practitioner technical support and training, as well as consumer advice as part of the Nutri Advanced Nutrition team.



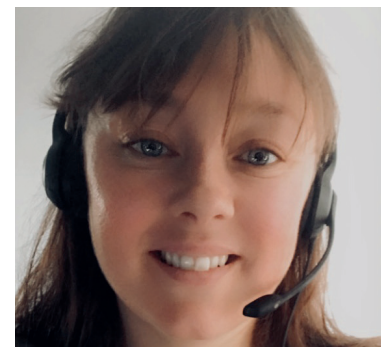
MARTINA DELLA VEDOVA

Martina Della Vedova obtained a Master in Functional Genomics in Italy and trained as a Nutritional Therapist in London. She works for NaturesPlus as a Nutritional Advisor and also sees clients privately.



JULIE WESTON

As Lead Nutritionist at Haskapa, Julie Weston BSc. (Hons), Dip ION, mBANT, CNHC is responsible for content creation, brand advocacy, and professional engagement. Julie also facilitates talks and presentations to educate professionals on the unique benefits of Haskapa's products, ensuring they are recognised for their role in supporting health and wellbeing.



KERI BRIGGS

Keri Briggs is Senior Nutrition and Technical Advice Specialist at Lamberts Healthcare. She graduated in 1999 with a BSc in Human Nutrition and has worked for Lamberts since 2000, where she has been involved with training, clinical trials and writing PR and trade articles, as well as advising trade customers and consumers.

THE NEW PARADIGM FOR POST-COVID CARE

A.R.T. Global & Klinghardt Institute are thrilled to invite you to the 7th International Conference "Our Health Our Future".

This year's conference is designed to address some of the most urgent health questions emerging in the post-COVID era, bringing together leading experts, practitioners, researchers and patient communities to explore these often complex and interconnected challenges.

OUR HEALTH OUR FUTURE

7th INTERNATIONAL
CONFERENCE

27/28
SEPTEMBER 2025

TORINO / ITALY

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Speakers

Dr. Dietrich Klinghardt PhD
Prof. Giovanni Frajese
Dr. Judy Mikovits
Dr. Rob Verkerk PhD
Prof. Gerald H. Pollack PhD
Prof. Angus Dalgleish
Daniela Deiosso MSc
Gilian Crowther MA (Oxon), NT/ND
Dr. Fabio Zoffi PhD
Dr. Nicola Antonucci
Dr. Giuseppe Marinaci

Language

The conference will be in English
with simultaneous translation in Italian

NEWS BITES

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

Research reveals food environments could reduce disease burden

A new EU-funded study has shown what we eat, and the food environments that shape those choices, could reduce disease burden and environmental harm across Europe.

The European PLAN'EAT project, funded under the Horizon Europe initiative, has released its first key publications, suggesting food environments and dietary shifts could dramatically reduce disease burden and environmental damage across Europe, with up to 89,000 healthy life years saved annually in Italy alone through dietary changes. Similar gains are projected in France and Sweden.

The research highlights that better-informed consumers aren't enough – food environments, including availability, pricing, and social context, are critical to shaping diets.

"Our diets are shaped by what's available, affordable, and socially reinforced. If we don't change our food environments, we cannot expect healthier choices," commented Professor Erik Mathijs, KU Leuven, lead report author. "The results of the study reveal that the influence of food environments on consumer choices depends not only on company strategies relating to product, price, promotion and distribution, but also on consumer experience within a



socio-economic context. This context is particularly relevant in the case of socially vulnerable consumers, such as children, low-income groups, the elderly, or people in poor health."

PLAN'EAT's first major study is based on the premise that promoting a healthy and sustainable diet cannot be achieved solely through better informed consumers and identified five challenges impacting food choices: availability and accessibility; affordability and pricing; information; culture and traditions; and social interactions. PLAN'EAT's second report summarises evidence of key health, environmental and societal sustainability challenges, providing recommendations to guide consumers, policymakers, and food industry professionals.

"The health assessment of the study aimed to compare current diets with Mediterranean and

planetary health diets, in terms of impact on Disability-Adjusted Life Years (DALYs), a crucial measure for assessing the overall burden of disease," added Katerina Palascha, main author of the health analysis.

Using dietary patterns in Sweden, France and Italy as examples, significant shortfalls were identified compared to international dietary recommendations:

- **Sweden:** Adopting the planetary health diet could save 18,942 DALYs annually, an eight per cent reduction in disease burden, through increased consumption of legumes, whole grains and nuts/seeds, and reduced intake of red and processed meats.
- **France:** Transitioning could save 80,901 DALYs, representing a 6.9 per cent reduction in disease burden, where increased consumption of whole grains, legumes, nuts/seeds, fruit and vegetables would have a significant effect.
- **Italy:** The diet could save 88,964 DALYs, accounting for a six per cent reduction in disease burden, primarily through increased consumption of legumes and nuts/seeds.

Post-Covid medicine focus of forthcoming conference

The lingering impact of Covid-19 is among the topics being discussed at a conference.

A.R.T Global and Klinghardt Institute are hosting the 7th International Conference, Our Health Our Future, on September 27-28 in Torino, Italy.

This year's event, with KI Science and Kontak as gold sponsors, is designed to address some of the most urgent health questions emerging in the post-Covid era, bringing together leading experts, practitioners, researchers, leading experts, practitioners, researchers and patient communities to explore these often complex and interconnected challenges.

Speakers include Dr Dietrich Klinghardt PhD, Professor Giovanni Frajese, Dr Rob Verkerk PhD and Gillian Crowther MA (Oxon), NT/ND, among others.

Find out more by emailing info@klinghardtinstitute.com

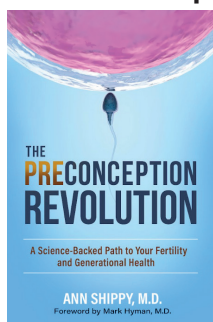
Functional medicine leader pens new book

A new science-backed guide to support fertility has been penned by functional medicine expert, Dr Ann Shippy.

The Preconception Revolution: A Science-Backed Path to Fertility and Generational Health, is a groundbreaking approach to improving fertility and securing long-term wellness for future generations. Featuring a foreword by Dr Mark

Hyman, the book is due for release on November 18 by Simon & Schuster.

With nearly two decades of clinical experience,



Dr Shippy created *The Preconception Revolution* in response to growing concern among would-be parents facing an unprecedented children's health crisis.

The Preconception Revolution addresses not only physical health but emotional wellbeing, and emphasises the importance of a balanced, holistic approach to preconception care.

Dr Shippy introduces the BIRTH framework: Believe, Introspect, Renew, Thrive, Hope, guiding readers through essential steps for fertility and preparing the body for conception.

CBD reformulation guidance updated

Guidance on CBD businesses to reformulate products has been updated by the Food Standards Agency (FSA).

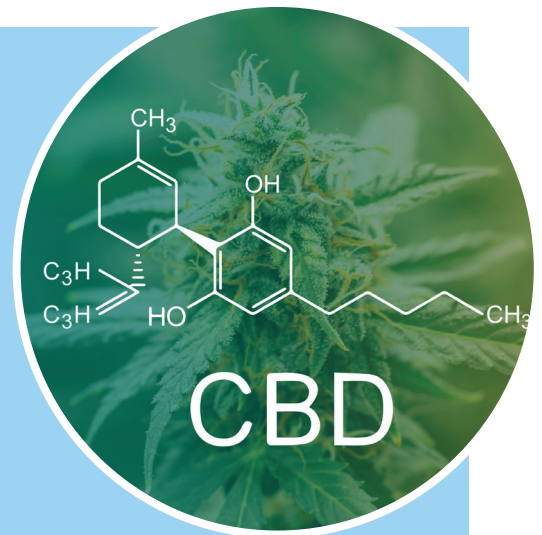
CBD businesses with applications on the FSA's Public List are being encouraged to reformulate food products to improve consumer safety. These are products currently on sale in England and Wales linked to a credible application submitted for authorisation to the FSA and are not new to the market.

The changes encourage businesses to meet a CBD provisional acceptable daily intake (ADI) of 10mg per day of CBD and the THC safe upper limit of 0.07 mg THC per day. The safe upper limit for THC has been agreed based on advice from the FSA's independent scientific advisory committees. All CBD products must also comply with the Misuse of Drugs Act 1971 and the 2001 Regulations.

The change to guidance encourages compliance with novel food regulations while prioritising public health. The FSA added that allowing businesses to reformulate will make the authorisation process more efficient, while consumers benefit from safer CBD products.

The FSA's Thomas Vincent commented: "Our pragmatic approach allows businesses to do the right thing for consumer safety while progressing towards full regulatory compliance. This flexibility creates a clearer path forward for CBD businesses while ensuring products meet our safety standards."

The FSA advises CBD food businesses to review product labelling to display the recommended CBD acceptable daily intake limit and include key safety information such as age restrictions and warnings for those who are pregnant or taking medications.



"This update marks another step in the FSA's work to bring the CBD industry into compliance with food law, supporting both consumer safety and legitimate business growth in this expanding sector," the statement added.

BNF publishes pregnancy nutrition paper

The British Nutrition Foundation (BNF) has issued a briefing paper to provide a roadmap for nutrition in pregnancy.

Diet in Pregnancy combines the findings of academic research and recommendations from authoritative institutions, into a roadmap for nutrition for parents and babies, from preconception through pregnancy. It was published in the wake of the House of Lords Food, Diet and Obesity Committee's report, *Recipe for Health: a plan to fix our broken food system*, which emphasises the importance of targeting pre-conception, pregnancy and early life to improve the overall health of people in the UK.

Sara Stanner, Science Director of the BNF and co-author, commented: "Dietary advice that encourages adequate intakes of the wide range of nutrients that contribute to maternal and foetal health, emphasising foods rich in folate, iodine, iron, calcium, vitamin D, is crucial. This should be accompanied by advice to take folic acid supplements pre-conception and during early pregnancy and to consider taking vitamin D supplements throughout pregnancy between the months of October to early March, or throughout the year for those considered at 'high risk'."

The *Diet in Pregnancy* paper also considers specific nutritional issues in teenage and multiple pregnancies and references barriers to uptake of the Healthy Start scheme. The paper highlights the need for appropriate training and resources for healthcare professionals to enable them to help women adopt healthier lifestyles and ensure better maternal and foetal health outcomes, potentially breaking cycles of poor health across generations.

Viridian hits back after complaint against No Junk campaign upheld

After the Advertising Standards Authority (ASA) upheld a complaint against Viridian Nutrition's No Junk campaign, the company says the ruling is not in the public interest.

The ASA announced that it considers a Viridian No Junk advert and associated web page was misleading. It found the combination of phrases such as 'No Junk', 'say no to ultra processed supplements', and 'pure and active ingredients' could be misleading.

Responding to the ruling, Viridian Managing Director, Holly Thallon Steenson, commented: "Our 'No Junk' campaign clearly hit a nerve with our competitors, who chose to persuade the HFMA Council to lodge the complaint with the ASA. While we acknowledge the decision and will amend the campaign, I am deeply disappointed by this ASA ruling. At the heart of the issue is the use of fillers, binders and other artificial additives. Using the terms 'junk' and 'ultra-processed', daring to spotlight label small print, and shining a floodlight on the darker corners of food supplement manufacturing have been noticed.

"I wish to reassure everyone that Viridian will continue to champion clean manufacturing and the right of the public to choose additive-free supplements. I want to thank the Viridian creative team for the campaign concept, and acknowledge the independent doctors, journalists and researchers who contributed to the supporting Viridian *No Junk White Paper*, which evidenced all our claims. Our research tells us that people care about this issue so the natural products industry must respond or risk disappointing health store customers."

In a statement, Martin Last, Director General HFMA, commented: "The HFMA seek to establish a level playing field for claims made for food supplements. We follow our CAP Code and encourage and support our members to adhere to that code, which mirrors the standards set by advertising standards. Our CLEAR CHECK service enables manufacturers to check any advertising or labelling copy to ensure compliance prior to publication, to avoid being later subject to investigations from authorities. We note the comments raised by ASA in this case and endeavour to continue to support members and non-members alike in these matters."

IN RESEARCH

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

Probiotics may support health sleep cycle, study suggest

Researchers have concluded that probiotics may help to support circadian rhythms and mental health symptoms.

A new study published in the journal, *Brain Sciences*, set out the importance of the body's internal clock, explaining that more than merely determining our sleep pattern, it also improves the quality of our sleep, alleviates the symptoms of depression, and maintains the balance of our gut flora.

The researchers carried out a 12-week randomized controlled trial with 99 adults from Kolkata, New Delhi, and Pune who reported sleep problems and symptoms of depression or anxiety. Participants received either a probiotic formulated to improve sleep quality and reduce depressive symptoms, or a placebo.

Their sleep was tracked using overnight studies and wearable devices, and depressive symptoms were assessed with standardised questionnaires. They also analysed stool samples to profile gut bacteria and their metabolites using gene sequencing and metabolomics. Advanced statistics and machine learning helped



pinpoint the key microbial and metabolic factors tied to sleep and mental health.

The researchers reported that at the start, participants with disrupted sleep and depressive symptoms had fewer beneficial gut bacteria, such as *Bifidobacterium* and *Lactobacillus*, more inflammation-related microbes, and lower levels of helpful short-chain fatty acids. These imbalances were linked to poorer sleep efficiency, less REM sleep, and higher depression and anxiety scores.

After 12 weeks, those taking the circadian-supporting

probiotic saw a statistically significant increase in beneficial gut bacteria, improved sleep efficiency and greater reductions in depression and anxiety compared to the placebo. Increases in SCFA-producing bacteria most strongly predicted improvements.

In conclusion, the researchers commented: "Our results show that taking a probiotic supplement can help bring your gut back into balance, support better sleep, and lift symptoms of depression and anxiety. This offers a hopeful and practical option for people looking for real relief from these deeply connected challenges."

Research examines immune system's role in wound healing

A new study from the University of Manchester has offered new insights into the immune system's crucial role in wound healing.

Researchers at the university along with Singapore's A*STAR Skin Research Lab scientists, have concluded that an enzyme expressed by skin cells could be helpful in the management of non-healing skin wounds and ulcers.

The paper, published in the *British Journal of Dermatology*, reveals that the enzyme – called arginase 1 – can promote wound repair in the skin, through modulation of a protein called Lipocalin2.

The research explained that the major factor in non-healing wounds is a failure of the damaged outer layer of skin, the epidermis, to repair and regrow. This can be worsened by

uncontrolled inflammation and infection.

The authors show that on wounding, Arginase 1 enhanced production of Lipocalin2, an anti-microbial agent, which was required to combat infection and help the skin cells reform the skin barrier. Arginase 1 also reduced levels of inflammatory products made by the damaged skin cells, showing its potential for tackling the inflammation typically associated with chronic wounds.

The researchers also showed that the function of arginase could be restored to help skin regrow by adding products that arginase 1 can make, which include metabolites called polyamines.

Lead author, Sheena Cruickshank, Professor of Immunology at The University

of Manchester's Lydia Becker Institute of Immunology and Inflammation, commented: "Non-healing skin wounds, or ulcers, are incredibly common and serious skin conditions that are more common as we age. They can have a devastating effect on the lives of patients, causing chronic pain, problems with mobility and can lead to increased morbidity. Similarly, eczema can significantly impact quality of life, leading to intense itching, pain, and sleep disruption. It can also increase the risk of skin infections.

"We clearly have a long way to go before these skin conditions can be cured but knowing the crucial role of arginase 1 in the healing process and that we can rescue function in model systems is an important milestone."

Inulin shows promise for metabolic health

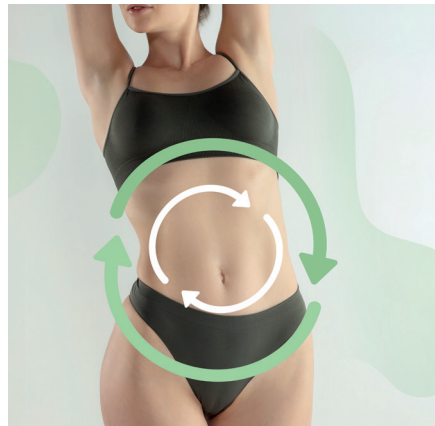
New research has found that certain prebiotics can help to support metabolic health.

Researchers, writing in the *BMC Medicine* journal, explained that modulating the gut microbiota with prebiotics is a promising strategy for managing metabolic diseases. However, the clinical effects on glycaemic metabolism across different populations remain uncertain. And so, in this study, they conducted a randomized, double-blind investigation to examine the impact of inulin and fructooligosaccharides (FOS) on glycaemic metabolism in overweight/obese and healthy adults.

A total of 131 adults were included, with 44 receiving inulin, 43 receiving FOS, and 44 receiving placebo over a period of four weeks. Blood and faecal samples were collected before and after the intervention, and various metabolic parameters, gut microbiota composition, and metabolites were analysed.

The results revealed that placebo had no effect on glycaemic metabolism or gut microbiota. Inulin significantly reduced glucose levels at one and two hour during oral glucose tolerance test (OGTT), increased fasting insulin and lowered homocysteine (HCY) levels in overweight/obese individuals. These effects were not observed in healthy individuals. In contrast, although FOS significantly decreased HCY, it did not improve glycaemic metrics in either group. Inulin reduced the abundance of *Ruminococcus* by 72 per cent, positively correlating with improved glycaemic outcomes. It was also reported that functional prediction of gut microbiota revealed upregulation of microbial folate and glutathione metabolism with inulin, and purine metabolism with FOS.

“Practically, inulin may be more suitable for managing glycaemic dysregulation in overweight or obese individuals, while FOS may be considered for HCY reduction in individuals with normal glycaemic status. Such targeted use of prebiotics could complement existing dietary and pharmacologic strategies in personalised metabolic care,” the study concluded.



Probiotic blend reduces constipation and boosts mental wellbeing, study finds

A clinical study has concluded that a probiotic blend can reduce constipation and may support mental wellbeing in older adults

The new research confirms AB-BIOTICS and KANEKA PROBIOTICS' probiotic blend, containing *Lactiplantibacillus plantarum* KABP 031 and *L. plantarum* KABP 032, can alleviate occasional constipation in otherwise healthy older adults. The study, published in the *Journal of Dietary Supplements*, also revealed supplementation with the formula, marketed as INNERIM, may offer additional benefits such as stress relief.

In the randomized, double-blind, placebo-controlled trial, 70 healthy adults aged 50-80 experiencing straining during defecation and hard stool consistency received a daily dose of *L. plantarum* KABP 031 and *L. plantarum* KABP 032 or placebo for 84 days. Participants also took a daily multivitamin and kept a diary to track bowel habits and levels of stress and wellbeing, with diary data collected and analysed at baseline, after 42 days and after 84 days.

Those in the probiotic group had significant increases in BM frequency, with values higher than in the placebo group at day 42. Supplementation also led to marked improvements in stool consistency – from an average Bristol Stool Scale (BSS) score of 2.31 at baseline (≤ 2 is indicative of constipation), to over three (within the healthy range) at both the 42 and 84 day timepoints, with values higher than in placebo at day 42. The placebo group saw no significant improvements. After 42 days, participants in the probiotic group saw a significant decrease in percentage of bowel movements per week classed as constipation.

As a secondary endpoint, stress levels were measured using the Perceived Stress Scale (PSS). Researchers found PSS scores were significantly improved compared to baseline after 84 days of probiotic supplementation and the proportion of participants in the probiotic group with ‘moderate’ stress scores was significantly lower than in placebo (9.4 per cent vs. 37.9 per cent). These improvements in perceived stress may be due to improvements to overall digestive health but could indicate an influence on the gut-brain axis, although this requires further investigation.

“The metabolic and physiological processes that drive digestion slow down with age, which means that altered bowel function, including constipation, is a common health concern for older or elderly people,” commented Dr Maria Rodriguez-Palmero Seuma, Medical Director at AB-BIOTICS and study co-author. “This can have negative impacts on the quality of life for many older adults and put strain on both social and healthcare systems. As the findings of this new study demonstrate, probiotics such as our INNERIM blend, offer an attractive, safe and effective alternative for older people managing altered bowel habits.”

Research reveals two in five on weight loss jabs may not be getting enough nutrients

A new study has found almost two in five (37 per cent) of those taking weight loss injections are worried they are not getting enough nutrients.

The research, carried out by Asda Online Doctor, also found over half (52 per cent) skip meals several times a week, and nearly one in five (19 per cent) skip meals daily. A third (33 per cent) have lost interest in food or cooking since starting the injections. Despite the decline in food intake, a quarter (24 per cent) do not take vitamin supplements while on the medication.

When it comes to diet choices, many on weight-loss jabs are turning to less nutritious options. A quarter (24 per cent) admit to regularly eating unhealthy or processed snacks while on the medication. Among those surveyed,

lack of appetite and the struggle to find tasty and healthy options were the top challenges for poor dietary habits, with almost half (45 per cent) admitting these are the biggest barriers to healthy eating. A further 33 per cent said they find it difficult to prepare smaller meals. Some 21 per cent also admit that they don't eat enough fruit and vegetables and 22 per cent say they don't think they eat enough protein.



NEW TO MARKET

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

Mushroom brand secures MTick for menopause range

Love Mushrooms has become the latest brand to add the MTick certification to support women during the menopause.

MTick is used by the GenM collective, a group of over 120 brands and retailers committed to transforming the menopause shopping experience through the creation of a new retail category. And Love Mushrooms' Empower range is the latest to add the universal shopping symbol to its logo, designed to signpost menopause-friendly products and making it easier for customers to find what they need and shop with confidence.

Love Mushrooms has earned MTick certification for its Empower Peri Menopause and Empower Menopause range. The formulation reflects a thoughtful use of adaptogens and evidence-based micronutrients, and the product is clearly labelled and marketed in a responsible, non-misleading way. Both formulas feature a curated blend of mushroom extracts, botanicals and essential vitamins.

Love Mushrooms is one of the UK's leading mushroom supplement brands, and is based within Marcassie Farm, an organically certified smallholding in Forres, North East Scotland.



Bare Biology upgrades omega 3

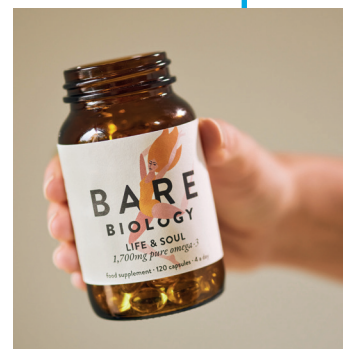
Life & Soul Omega-3 Fish Oil has undergone a revamp.

Bare Biology has made what it calls the UK's most powerful omega 3 and at the end of last year, it found a way to produce an even higher strength omega 3. Six months later, Bare Biology reformulated its Life & Soul range to be the most powerful omega 3 fish oil in the UK.

The range comprises:

- **Life & Soul Liquid:** 4,000mg omega 3 per teaspoon (previously 3,500mg).
- **Life & Soul Capsules:** 1,700mg omega 3 per two capsules (previously 1,460mg).
- **Life & Soul Mini Capsules:** 1,700mg omega 3 per four capsules (previously 1,460mg).

Every batch is tested by International Fish Oil Standards, the most rigorous benchmark for purity and freshness. Bare Biology has sourced its fish oil from the same Norwegian manufacturer since 2013 because they only use fisheries certified by both Friends of the Sea and the Marine Trust.



NPD for Sunwarrior with protein and greens focus



New products with a focus on protein and greens have been added to Sunwarrior.

The brand, which is distributed by Kinetic, has launched Sunwarrior Shape

Protein & Greens, offering clinically studied nutritional ingredients in a sustainable weight management formula, along with a collagen booster. The two proprietary Sunwarrior blends and their ingredients are:

- **Beauty Building Blend:** Organic pea protein, organic brown rice protein peptides, organic sea buckthorn powder, organic greens blend (kale, spinach, spirulina), organic tremella mushroom extract, hyaluronic acid, silica (from organic bamboo extract), marine algae.
- **Slimming Blend:** Organic Sunfiber (partially hydrolyzed guar gum), innoslim (astragalus membranaceus and panax notoginseng) root extracts, supresa saffron extract.

Available in Vanilla and Chocolate flavours, with no added sugars, it features 11g of plant-based protein per serving, prebiotics, astragalus, ginseng, iron and vitamin C, plus biotin, hyaluronic acid and tremella mushrooms for skin and hair support.

Weleda expands homeopathic range with period support

Period Pain Relief is the latest product to be launched under Weleda's homeopathic range.

Period Pain Relief Oral Drops is a homeopathic medicinal product for the symptomatic relief of menstrual cramps associated with period pains.

The active ingredient is lemon balm, grown organically to biodynamic standards in Weleda's Demeter-certified herb gardens in Derbyshire. The leafy aerial parts of the plant are harvested for Weleda's tincture production at the brand's pharmaceutical manufacturing site in Ilkerton whilst at their freshest, combined with organic grain alcohol.

A member of the mint family but with a citrus scent, lemon balm is traditionally known for its anti-spasmodic action and calming, soothing, relaxing, pain-relieving medicinal properties. With a natural carminative action, it has been used to relieve the discomfort of bloating which often accompanies period pain. It is rich in flavonoids and phenolic acids, valued for their natural anti-inflammatory properties.

Period Pain Relief comes in a 25ml pocket-size recyclable glass dropper bottle. The product is suitable for use from the age of 12.



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LONDON CALLING

We are delighted to confirm the IHCAN Summit returns this November – so don't miss out on your place.



This November, London will once again play host to the UK's leading integrative health professionals as the acclaimed IHCAN Summit returns on Saturday, November 15, at the prestigious 155 Bishopsgate venue.

Now firmly established as a key event for nutritional therapists, students, and CAM practitioners, the IHCAN Summit is renowned for delivering unmissable education from some of the world's most respected voices in integrative health.

The line-up

Topping this year's speaker roster is Lucinda Miller, founder and clinical lead of NatureDoc, who brings her blend of clinical expertise and personal insight to the stage. Her session, 'Immune Dysregulation, Neurodivergence & Mental Health', promises a thought-provoking exploration of one of healthcare's most complex and pressing challenges.

Joining her is Dr Victoria Sampson, the Harley Street dentist fast becoming a global authority on oral-systemic health. In her keynote, 'The Oral Microbiome – Why We Must Factor It in for Full Body Health', Dr Sampson will shed light on how oral microbiota could hold the key to addressing chronic conditions such as diabetes, cardiovascular disease, and Alzheimer's.

Also speaking is Dr Alex Wilber, a physicist-turned-nutritional therapist, whose presentation will delve into the growing role of artificial intelligence in clinical practice, offering a fresh perspective on how technology is reshaping integrative care. A fourth, high-profile speaker is yet to be announced, so keep a close eye on ihcansummit.co.uk for updates.

More than a conference

The IHCAN Summit is far more than a series of lectures. Delegates will enjoy a fully immersive day of CPD-



accredited education, leading-edge clinical insights, and access to the latest developments in research and diagnostics.

The exhibition floor will showcase more than 50 pioneering brands, from leading supplement companies and diagnostic labs to professional associations, making it an essential marketplace for innovation and collaboration.

Add to this a three-course healthy buffet lunch, refreshments throughout the day, a printed delegate pack, and post-event access to all session recordings, and it's clear the summit goes above and beyond the typical conference experience.

Book early or miss out

With previous IHCAN events selling out well in advance, early booking is not just advised, it's essential. Tickets start from £95, with discounts available for association members and students. Book your place at www.ihcansummit.co.uk/november-2025.

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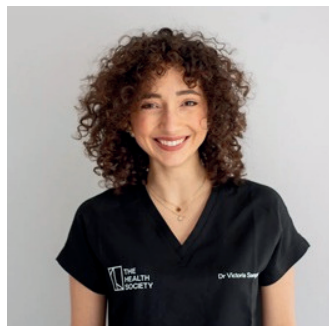
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IMMUNE HEALTH IN PRACTICE

Expert guidance around the most appropriate nutritional therapy protocols for immune support.

The impending arrival of autumn means more clients are likely to be fighting to fend off the plethora of bugs that do the rounds at this time of year. Not only are there more viruses during the colder months, but if a person's immune system is low, they may also be suffering from a number of associated issues; they may get repeated infections, for example, the severity may be worse, or the effects can last longer than they should if immunity was at full strength.

While, of course, immune health is critical all-year round, there is no doubt that the arrival of autumn requires greater focus to be placed on it.

Alice Bradshaw, Head of Nutrition Education and Information at Terranova, commented: "Immune health is particularly relevant in autumn and winter. During these months, shorter days and limited sun exposure can lower vitamin D levels, an essential nutrient for immune regulation. People also tend to spend more time indoors, increasing the likelihood of virus transmission. Seasonal shifts in diet and activity levels can place added pressure on the immune system. Taking steps to support immune function during these times may help to reduce the risk of common infections and maintain energy and resilience."

Sophie Barrett, Medical Herbalist and Mycotherapy Advisor at Hifas da Terra, added: "Immune vigilance is particularly important during the colder months. Respiratory viruses circulate more freely in cooler, drier conditions and indoor settings increase exposure risk. Additionally, vitamin D levels typically drop, sleep patterns may be disrupted, and seasonal affective symptoms can compromise mood and stress resilience, all of which influence immune function. From a clinical perspective, this is an ideal time to proactively strengthen mucosal immunity and support the

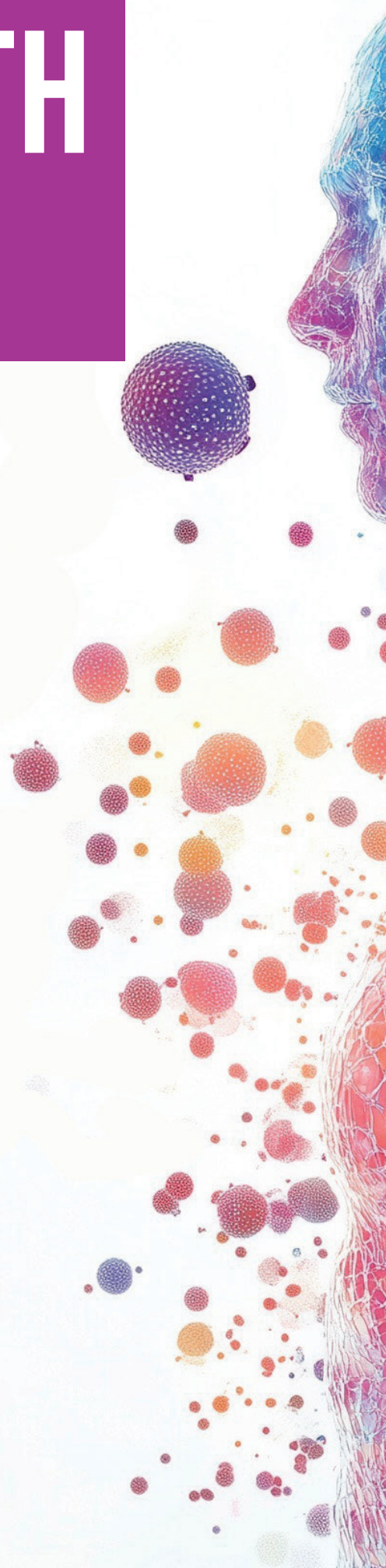
body's capacity to respond to pathogens, rather than waiting until symptoms arise."

Catherine Gorman, Nutritionist and Health Advisor at Good Health Naturally, continued: "Many people believe they should pay more attention to their immune system in winter, but the truth is, we should be supporting our immune system all year round. That said, the colder months do present some extra challenges. In winter, most of us spend more time indoors, often in closer contact with others and in environments with central heating and poor air circulation. This creates ideal conditions for viruses such as the common cold and influenza to spread.

"Additionally, cold air tends to be dry, and indoor heating reduces humidity even further. This can dry out the nasal passages and throat. These mucous membranes form a vital first line of defence in the immune system, helping to trap and expel microbes. When they become dry, they're less effective, making it easier for infections to take hold."

Meanwhile, Elouise Bauskis, Naturopath and Nutritional Therapist for Metagenics, highlighted the link with low vitamin D in the winter and immune health.

"The potential for vitamin D deficiency is very real, especially during wintertime when it's impossible to ensure adequate vitamin D sourced from the sun. This is one nutrient that we just cannot get enough of from food, therefore everyone should be taking a decent dosage of vitamin D every day during winter," she advised. "Vitamin D plays a critical role in the functioning of a healthy immune system, both in innate and adaptive immunity. It is effective for preventing colds and 'flu and fighting infection. Vitamin D deficiency is closely linked to the reduced function of the immune system."





AN IMMUNE UNDERSTANDING

When it comes to the science around the immune system, many factors are known to affect its function.

Keri Briggs, Senior Brand Specialist at Lamberts, explained: "Most people have a basic understanding of immunity; it is what protects us from the huge array of potentially infectious organisms which are swallowed, inhaled or touch our skin. But there are several different parts to immunity and immune function, some of which can be affected by lifestyle and diet."

"Immunity is divided into two specific parts; innate immunity and adaptive immunity. Innate is partially barriers based – the skin, mucous membranes, tears and stomach acid prevent the passage of organisms too far into the body. Innate immunity also functions on a cellular level, involving white blood cells including monocytes, macrophages and neutrophils, as well as cytokines and acute phase proteins. Neutrophils are often the first cells to arrive at a site of infection and are not only capable of engulfing pathogens but also relay signals to modulate the rest of the immune system via chemotaxis and produce microbicidal compounds to help kill bacteria. Natural killer cells (NK cells) are part of innate immune system, involved in patrolling the body to identify any abnormal cells and destroy them

"Adaptive immunity, as the name suggests, is an acquired response and can be passively acquired via the placenta or from colostrum or actively acquired via a previous infection or from vaccination. The adaptive immune system is more specific to the precise pathogen involved and it is normally activated when the innate immune system cannot cope with an infection. Because of its specificity, the response time can be longer, but more targeted and longer lasting. Cells involved in the adaptive immune response include:

- **T-lymphocytes** – involved in alerting and activating other immune cells (T-helpers), and killing pathogens (killer T cells).

- **B-lymphocytes** – activated by T-cells, they produce antibodies which match the pathogen involved, making this process extremely specific to the particular bacteria or virus.

- **Immunoglobulins** (often referred to as antibodies) – immunoglobulin G (IgG) marks microbes so other cells can recognise and deal with them. IgM is expert at killing bacteria. IgA congregates in fluids, such as tears and saliva, where it protects gateways into the body. IgE protects against parasites and is also to blame for allergies. IgD stays bound to B lymphocytes, helping them to start the immune response.

"Some T-lymphocytes can also become memory cells, allowing the body to react much

more quickly if a specific invader infects the body again. This is the premise of vaccination, where the introduction of a mild form of infection then allows the adaptive immune system to prepare and fight off a real infection."

Barrett added: "The immune system is a complex, dynamic network of tissues, organs, and cellular pathways that defends the body against pathogens, repairs damaged tissues, and maintains tolerance to self. It's broadly divided into the innate immune system, which provides rapid, non-specific responses, and the adaptive immune system, which develops antigen-specific memory over time. Key players include lymphocytes, macrophages, natural killer (NK) cells, dendritic cells, and the mucosal immune system particularly important in the gut."

"Beyond infection control, immune surveillance is critical for regulating inflammation, managing allergies and autoimmunity, repairing injured tissue, and identifying rogue or pre-cancerous cells. Contributing factors include hyperglycaemia and insulin resistance, which impair leukocyte function and increase inflammatory cytokines, low microbial diversity, due to over-sanitisation and poor gut health, and environmental toxins, endocrine disruptors, and ultra-processed food additives."

Gorman also pointed towards the link with the gut, explaining: "Approximately 70 per cent of immune tissue resides in the digestive system, in what's known as gut-associated lymphoid tissue. The gastrointestinal tract is technically 'outside' the body and home to many potentially harmful microorganisms. To manage this, the gut's mucosal lining is rich in immune cells, including lymphocytes and macrophages. Ongoing research shows that gut microbiota plays a key role in the development and regulation of both innate and adaptive immune responses."

And let's look in greater detail at the factors behind why a person's immunity could be lowered.

Bradshaw commented: "Several everyday factors can compromise the immune system. These include chronic stress, poor-quality sleep, inadequate nutrition, sedentary habits, and exposure to environmental toxins. The typical Western lifestyle often intensifies these challenges, with highly processed diets, prolonged screen time, reduced physical movement, and high stress levels. Over time, such habits can deplete nutrient reserves, disrupt the gut microbiome, and weaken natural immune defences. Creating more balance across diet, activity, rest, and stress management can help restore



immune strength."

Bauskis added: "Deficient vitamin D levels, nutrient deficiency such as zinc, vitamin A, vitamin E and C, and malnourished people. Diets high in UPF are devoid of nutrition and nourishment, and diet high in sugar competes with vitamin C for absorption and the body will preferentially take up the sugar first."

We must also educate about the damage that chronic stress, and, often linked, poor quality sleep, can have on our immune system.

Bauskis explained: "Did you know that chronic stress can negatively impact the immune system? Short-term stress is actually good for the immune system, however, long-term stress disrupts the normal reaction of the immune system. This stress reduces the quantity of immune cells able to fight off bacteria and viruses, meanwhile, the balance



is negatively tipped between inflammatory and anti-inflammatory immune cells. A little inflammation when warranted in an acute situation like an injury is essential and helpful, but chronic inflammation is unhealthy and forms the basis of all chronic disease.

"Chronic stress can also encourage the immune cells whose role it is to produce antibodies to ramp up their activity, which can lead to autoimmune diseases. This is where the immune cells end up 'attacking' itself by mistake."

Gorman also advised: "Many people are not getting enough sleep; it's a critical time for the body to carry out immune maintenance. It is when the body replenishes energy stores, repairs tissues, and produces essential immune proteins such as cytokines. These cytokines are necessary for regulating immune

responses, especially during times of infection, inflammation or stress. If sleep is lacking, cytokine production drops, weakening the body's natural defences.

"Obesity has a significant negative impact on immune health. Excess fat tissue promotes chronic low-grade inflammation and interferes with immune cell function. It alters cytokine production and can reduce the effectiveness of key immune cells like macrophages, and natural killer cells."

And Briggs advised: "Exercise is a lifestyle choice which can have an effect on immune function, and much will depend on the regularity and type of exercise. Many studies have suggested that exercise, particularly intense or exhaustive exercise, can decrease NK, B and T Cells activity and are linked to an increase in infections, especially those affecting

the respiratory system. However, a sedentary lifestyle with little to no exercise is just as bad, as moderate exercise increases macrophages and circulation of immune cells."

She also highlighted the impact that Covid-19 has had on people's immune health.

"Covid-19 has had some lasting effects on immunity. Studies suggest that those who have had severe Covid had some lasting changes to the function of the innate immune system. They were seen to have alterations to stem cells, which resulted in a greater production of white blood cells and more inflammation," Briggs advised.

"There have also been suggestions that the periods of lockdown have caused issues with the development of immunity to certain common infections, with the rise of the 'super cold'. This seems to be particularly relevant to babies and young children, who may not have been exposed to common infections during lockdown. This has led to fewer initial infections but may have inhibited the correct development of the immune system, leading to a higher incidence of allergies and eczema, as an underdeveloped immune system responds to potential triggers in an inappropriate fashion."

Importantly, your clients need to understand what symptoms they may experience if their immunity is under par.

Barrett commented: "Common clinical signs include frequent colds, infections, or slow recovery, recurrent urinary tract or respiratory infections, chronic sinus congestion or oral thrush, reactivation of latent viruses (for example, herpes simplex, shingles), poor wound healing, unexplained fatigue or low resilience and elevated CRP or white cell abnormalities. Subtle signs, such as increased food sensitivities, low-grade inflammation, and mood changes (linked to cytokine activity), are also clinically relevant."

Bauskis added: "A weakened, out of balance immune system may increase the likelihood of infections, and we find people who are getting sick often, and not recovering as quickly. Chronic infections that won't resolve, such as fungal infections, sinus infections, having allergic reactions, such as sinusitis, hay fever, eczema, asthma and generally being much more reactive. Autoimmunity is a sign that the balance of the immune system is definitely out of whack – examples of autoimmune disorders are Hashimoto's thyroiditis, lupus, and rheumatoid arthritis. White spots on the fingernails (where the nail has not been damaged) and slow healing wounds are often a sign of zinc deficiency, which is a very common deficiency."

LONG-TERM IMPLICATIONS

Prolonged low immunity can leave people at greater risk of certain health complaints.

Barrett advised: "Chronic immune suppression or dysregulation is associated with increased risk of:

- Chronic inflammatory diseases (for example, cardiovascular disease, type 2 diabetes, and arthritis).
- Autoimmune conditions, especially in genetically susceptible individuals.
- Persistent viral infections and viral reactivation.
- Oncogenesis, due to impaired immune surveillance of aberrant cells.
- Cognitive decline, given the role of microglial cells in neuroinflammation.

"In practice, long-term low immunity also contributes to a low-vitality phenotype, where patients present with fatigue, poor recovery, hormonal imbalance, and reduced stress capacity."

And Bradshaw commented: "Sustained low immunity can lead to frequent infections and slower recovery, which may in turn increase the risk of more persistent or serious health issues over time. These may include ongoing respiratory infections, digestive disturbances, or chronic inflammatory conditions. Consistent immune support is important not only for short-term protection but also for long-term wellbeing."

Bauskis added: "Increased likelihood of autoimmunity. low white blood cells – our protection is just not there as the WBCs are our army. Chronic infections that won't resolve, and worst-case scenario would be autoimmunity and cancer."

And are there times when people need to place extra focus on their immune system?

Bauskis advised: "If you have had a course of antibiotics, do be aware that they do not discriminate between the good and bad bacteria, and annihilate all of the gut flora, leaving you internally 'stripped'. Therefore, it is vitally important to reinoculate your gut flora with a good quality, high potency probiotic formula for a minimum of three months."

Barrett went on: "Immune support should be ongoing, not seasonal. That said, practitioners should pay particular attention during autumn into winter, as respiratory pathogens increase, periods of high stress, travel, or sleep disruption, post-illness or recovery phases, to rebuild immune strength, menopause and andropause, when oestrogen/testosterone-mediated immune regulation can shift, and perioperative periods, or in patients undergoing intensive therapies like chemotherapy."



IMMUNITY AND NUTRITION

When it comes to advice to clients about the importance of nutrition and how diet can support immunity, the recommendations involve not just what needs to be added in but, critically, the dietary factors that can seriously deplete immunity.

Gorman recommended: "Our food choices can have a profound impact on immune health. A nourishing diet rich in vegetables, fruits, healthy fats, nuts, seeds and pulses with good-quality meat and fish helps ensure a wide range of vitamins, minerals and antioxidants which are all needed to support immunity. Fibre and fermented foods such as kefir, kombucha, and sauerkraut will help support the microbiome, which is closely linked to immune function.

"Vitamin C-rich foods such as oranges, blackcurrants, peppers, and broccoli can also help strengthen immunity, particularly in the colder months. Since vitamin C cannot be stored in the

body, it must be consumed daily. A deficiency can lead to increased susceptibility to infections. Research suggests flavonoids can help reduce the risk of respiratory infections. Good sources include blackberries, apples, bananas, pears, tomatoes, aubergines, onions, celery, artichokes, walnuts, pecans, and beans. Turmeric contains curcumin a compound known for its antioxidant and anti-inflammatory properties. It may help reduce inflammation and inhibit viral replication. Garlic, used for centuries to support immunity, contains allicin and other compounds shown to combat bacteria, viruses and fungi, potentially reducing the severity and duration of colds and 'flu.'

Bauskis also pointed out: "Well-balanced macronutrients are key to a healthy functioning immune system. We need enough protein every day, as it is literally the building blocks of all of our cells, good quality fats, specifically omega 3, and carbohydrates. A rainbow of vegetables and

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fruit, which will provide a broad spectrum of nutrients, antioxidants and phytochemicals that may support a healthy immune system. Ensure plenty of vitamin C-rich foods such as kiwi, citrus, berries, peppers and broccoli. Reduce sugar intake, as sugar competes with vitamin C for absorption and wins! Plus, sugar increases inflammation within the body, which reduces immunity. Excess sugar also negatively impacts the activity of macrophages, the specialised immune cells that 'gobble up' pathogens, specifically bacteria. They're also crucial for wound healing too, and sugar further inhibits this action."

Barrett continued: "Immune support protocols should begin at least four to six weeks ahead of peak pathogen exposure for optimal efficacy. This allows time to establish immune tolerance, modulate inflammatory tone, and correct micronutrient deficits. From a practitioner perspective, an immune-supportive protocol includes a whole-food, anti-inflammatory diet: rich in cruciferous vegetables, leafy greens, garlic, onions, and colourful polyphenols, adequate protein, essential for antibody production and tissue repair, and prebiotic fibres, such as leeks, chicory, and artichoke, to support gut immunity. Hydration and salt balance support lymphatic movement and mucosal integrity."

And Bradshaw recommended: "An immune-supportive diet includes a variety of nutrient-rich whole foods. Colourful fruits and vegetables provide antioxidants and vitamin C, while lean protein from both animal and plant sources supplies the amino acids and zinc needed for immune cell repair and defence. Examples include poultry, meat, eggs, oily fish, beans, lentils, tofu, and tempeh. Healthy fats from nuts, seeds, avocados, and olive oil help maintain the integrity of cell membranes. Fermented foods like kefir, kimchi, and live yoghurt help support a diverse and balanced gut microbiome, which plays a vital role in immune regulation."

When it comes to lifestyle support, Barrett also advised: "Restorative sleep, seven to nine hours, ideally aligned with circadian rhythms, stress modulation, such as breathwork, nature exposure, mindfulness, and moderate movement: brisk walking, resistance training, yoga."

Gorman added: "Physical activity is another cornerstone of immune health. Aim for at least 20 minutes of moderate-intensity aerobic exercise a day like walking, cycling or jogging. Resistance training is also important for maintaining muscle strength and mobility. Managing stress through practices such as mindfulness, meditation, yoga, Tai Chi, and Pilates can help build resilience."

NUTRIENT PROTOCOLS

Supplements can often be recommended in terms of immune protection, beneficial before the onset of the cold season to ensure immunity is as strong as it can be. There may also be supplements to bear in mind to help overcome infection.

Vitamin D3 can be considered one of the most important for immune health.

Briggs advised: "Studies show that a sufficient level of vitamin D is essential for the production of anti-microbial peptides and has significant effects on the production, maturation and regulation of immune cells, including T-regulatory cells, often due to the presence of vitamin D receptors (VDR) in these cells. Low serum vitamin D is associated with an increased rate of infection and more sick leave. A study in 2010 showed that supplementation with vitamin D reduced the incidence of 'flu by 42 per cent."

In terms of other vital vitamins, Gorman advised: "Vitamin C supports various cellular functions of the immune system and helps protect against oxidative stress. The body can't store vitamin C, it must be consumed daily, either through diet or supplementation."

Bauskis went on: "Vitamin A – the actual retinol form – is only found in animal sources, which includes eggs, butter and liver. Therefore, if someone is vegetarian/vegan, or has a restricted diet, they may well be deficient. Most people can convert beta-carotene in the body into actual vitamin A, so that can solve the problem, however, the more we learn about people's genetic SNPs (single nucleic polymorphisms), which could also be described as genetic 'faults, we know that for some, they are missing the specific enzyme to be able to convert beta-carotene into vitamin A. This is where a supplement could make a powerful impact."

And there other recommendations you could keep in mind too.

Bauskis suggested: "Beta glucans are an excellent and easy way to modulate the immune system, balancing TH1 and TH2, the two arms of the immune system. Beta glucans are found on the surfaces of bacteria, yeasts, fungi, and they prime our immune system, they 'exercise' the immune system and teach it how to function properly. Our cells have receptors for beta glucans, and it's thought that due to us being too sterile in our environment that we actually may have a deficiency of beta glucans.


"This may encourage the imbalance of the TH1 and TH2 immune cells. Therefore, supplementing with beta-glucans may over

time rebalance the immune system, which can have a hugely positive impact on immunity overall, reducing how often someone may get ill, plus reducing allergic reactions, especially hay fever, but also eczema, and asthma too."

Gorman also recommended: "Supplementing with zinc and selenium can help support immunity. Due to modern soil depletion, levels of these minerals in our food may be lower than in the past, making supplementation a practical option for many. Olive leaf extract is increasingly recognised for its immune-supportive properties. It contains a powerful compound called oleuropein, which has been shown to have antiviral, antibacterial and anti-inflammatory effects. Some studies suggest it may shorten the duration and severity of cold or 'flu-like symptoms."

And Briggs suggested: "There are several herbs and other nutrients which can support immune function in various ways. Perhaps best known is echinacea, which has been shown in repeated trials to reduce the duration and severity of the common cold. It also has positive effects on wound healing and





“Functional mushrooms have a unique ability to modulate, not overstimulate this system, making them valuable tools for practitioners aiming to support immune health with nuance and precision.”

inflammation. Its effects are due to a number of mechanisms, including effects on innate immune cell numbers, phagocytosis, and NK cells.

“Elderberry is traditionally used for supporting the immune system, which seems to be mainly linked to its content of anthocyanidins, a group of plant polyphenols found in dark purple and red fruits. These appear to be able to attach to viral

glycoproteins, which then prevents them from entering cells. It has been shown to inhibit ‘flu viruses and reduce symptom severity in URTIs.

“Several herbs which are adaptogens are also thought to be useful for immune function, possibly due to the effects they have on stress and the effects stress can have on immunity. This group of herbs includes *Eleutherococcus senticosus* (Siberian ginseng), *Panax spp* (Korean ginseng), *Rhodiola rosea*, and *Withania somnifera* (ashwagandha). Some of the effects are direct, involving the inhibition or termination of viruses or modulation of immune cells such as NK cells, lymphocytes and phagocytes and some are linked to the reduction of oxidative stress and its resulting damage to cells.

“Siberian ginseng has been widely studied in the former Soviet Union, where several studies have shown it to reduce the severity of ‘flu infections as well as reducing the potential complications of this type of infection. Korean ginseng, despite being a different species, exhibits similar benefits, reducing the frequency of colds and ‘flu. *Rhodiola rosea* has been used in those with COPD, where it improves breathing and acute lung injury (ALI) and Acute Respiratory Distress Syndrome (ARDS), where it reduces risk factors and complications. It also stimulates anti-viral effects and reduces the increase in viral replication associated with exercise.”

MUSHROOM SUPPORT

Mushrooms too play an important role in immune health.

Barrett explained: “Functional mushrooms offer long-term immune modulation, supporting both over- and under-active immune responses without pushing the system into imbalance. Functional mushrooms have a unique ability to modulate not overstimulate this system, making them valuable tools for practitioners aiming to support immune health with nuance and precision.”

“Functional mushrooms like shiitake and chaga support mucosal immunity and antioxidant pathways, which can be compromised in these states. Functional mushrooms such as turkey tail (rich in polysaccharide-K and polysaccharide-peptide) and chaga (high in melanin and betulinic acid) offer antioxidant, prebiotic, and detoxification support, helping mitigate the burden of modern lifestyle-induced immune dysregulation.

- **“Reishi** – immunomodulator, antiviral, anti-allergenic, sleep-supportive.
- **Turkey tail** – enhances NK cell activity and gut-associated lymphoid tissue (GALT).
- **Maitake** – supports macrophage activation and metabolic health.
- **Cordyceps** – enhances stamina, lung function, and antiviral immunity.
- **Chaga** – antioxidant powerhouse with antiviral potential.

“High-quality extracts standardised for beta-glucan content are key and ideally used in synergistic blends tailored to the individual’s constitution and needs.”



The menopause manual

With nutrition widely accepted as a key component of menopausal health, practitioners have a role to play in educating women around the modifiable factors that can make a big difference to their wellbeing.

The menopause has shifted to the forefront of mind as advances have been made in raising awareness around the huge impact on a woman's health. But when you consider that globally, one billion females at any time are affected by this inevitable stage in their life, it's critical that the true impact is better understood and supported.

And this impact not only affects a woman's own health, physically and mentally. It has knock-on effects on their family life, on their workplace, and more. Take the data from the GenM organisation as an example; some 71 per cent of women fear the menopause, and 45 per cent feel invisible, lonely and dispensable. Concerningly, only two per cent are thriving during this time.

As practitioners, you will be aware of the crucial role nutrition plays in the menopause. However, very often, women will need greater support around manageable changes they can make at a time when they are likely to be feeling physically and mentally depleted.

Keri Briggs, Senior Brand Specialist at Lamberts, advised: "A study led by UCL has uncovered some interesting statistics regarding this time of life; 94 per cent of women had not been taught about the menopause and 49 per cent felt uninformed about it. Unsurprisingly, this has led to nearly 16 per cent of women dreading this period of their lives and 63 per cent finding it hard to cope with. Given that this is a process that 51 per cent of the population will experience, the lack of knowledge and available information seems unbelievable, and most women are forced to do their own research about how to cope more easily with the symptoms they experience. However, menopause is being discussed much more openly than in previous generations, when many women suffered silently. Women can research treatments and lifestyle changes independently and new options for symptom management are discovered and are being used more widely."

Sophie Barrett, Medical Herbalist and Mycotherapy

Advisor at Hifas da Terra, also commented: "Although awareness has improved, there is still a knowledge gap, particularly when it comes to the biological complexity of the menopausal transition and the potential of therapeutic nutrition and integrative tools to modulate symptoms. Too often, the conversation focuses narrowly on hormone replacement therapy or symptom suppression, rather than supporting the adaptive systems that underpin endocrine health such as the HPA axis, liver detoxification, metabolic resilience, and immune balance. Practitioners are uniquely positioned to guide women through this transition using functional nutrition and evidence-based natural interventions, including medicinal mushrooms."

Martina Della Vedova, Nutritional Advisor at NaturesPlus, also advised: "Women's hormonal issues have been an undiscussed topic for so long, with stigma ending in a total lack of support. Women over 50 represent a very fast-growing segment of the workforce and now it is necessary to address this natural but quite challenging time for them. As natural as this moment in a woman's life is, it needs more attention and studying to understand better how the body faces and manages this transition under much more pressure in terms of toxins, stress and mental related challenges. Not only do we have a gap in knowledge about this natural hormonal change, but we also lack social structure to allow women to face it without having job and mental health repercussions."

Alison Cullen, Nutritional Therapist and Education Manager at A.Vogel, agreed, adding: "Awareness has grown, which is great, but there's still a real lack of understanding, both among the general public and even many medical professionals. And then with so many conflicting opinions online and in the media, it can end up even more confusing for women trying to get answers."



Understanding the process

Let's look in detail at the menopausal process, and how understanding has evolved in more recent years.

Lucy Sparkes, Nutritional Therapist at Nutri Advanced, commented: "Medicine has generically used the term 'menopause' to describe the moment in time when a woman has stopped menstruating and hasn't done so for 12 months. In this moment, a woman enters menopause. However, it is only relatively recently that the term 'perimenopause', which describes the years leading up to this moment, has been discussed and brought to women's and the public's attention.

"Perimenopause describes this 'transitional' period in a woman's life that can last for years before menopause arrives. It is these perimenopausal symptoms that have been discussed more widely in the public arena lately. It is interesting to note that perimenopause doesn't seem to exist in certain parts of the world such as Japan, and there are a few theories to explain this: cultural perception; dietary intake; chronic stress levels and lifestyle factors; perception of traditional gender

roles; and genetic differences across populations."

Corin Sadler, Nutrition Advisor at Viridian Nutrition, went on: "The menopause is a point in time, and what women mostly discuss in terms of symptoms is often related to the perimenopause lead-up years, although symptoms do continue into the post-menopause periods before gradually stopping. Declining oestrogen and progesterone in response to the reduction of active follicles define the perimenopause, the two to eight years before the menopause itself. During this time, periods become irregular as hormones fluctuate. Progesterone is gradually declining from the 40s or earlier and occurs whilst oestrogen is still relatively high and can lead to heavier periods until oestrogen also drops. Testosterone declines from around the time a woman hits her 30s but much more gradually.

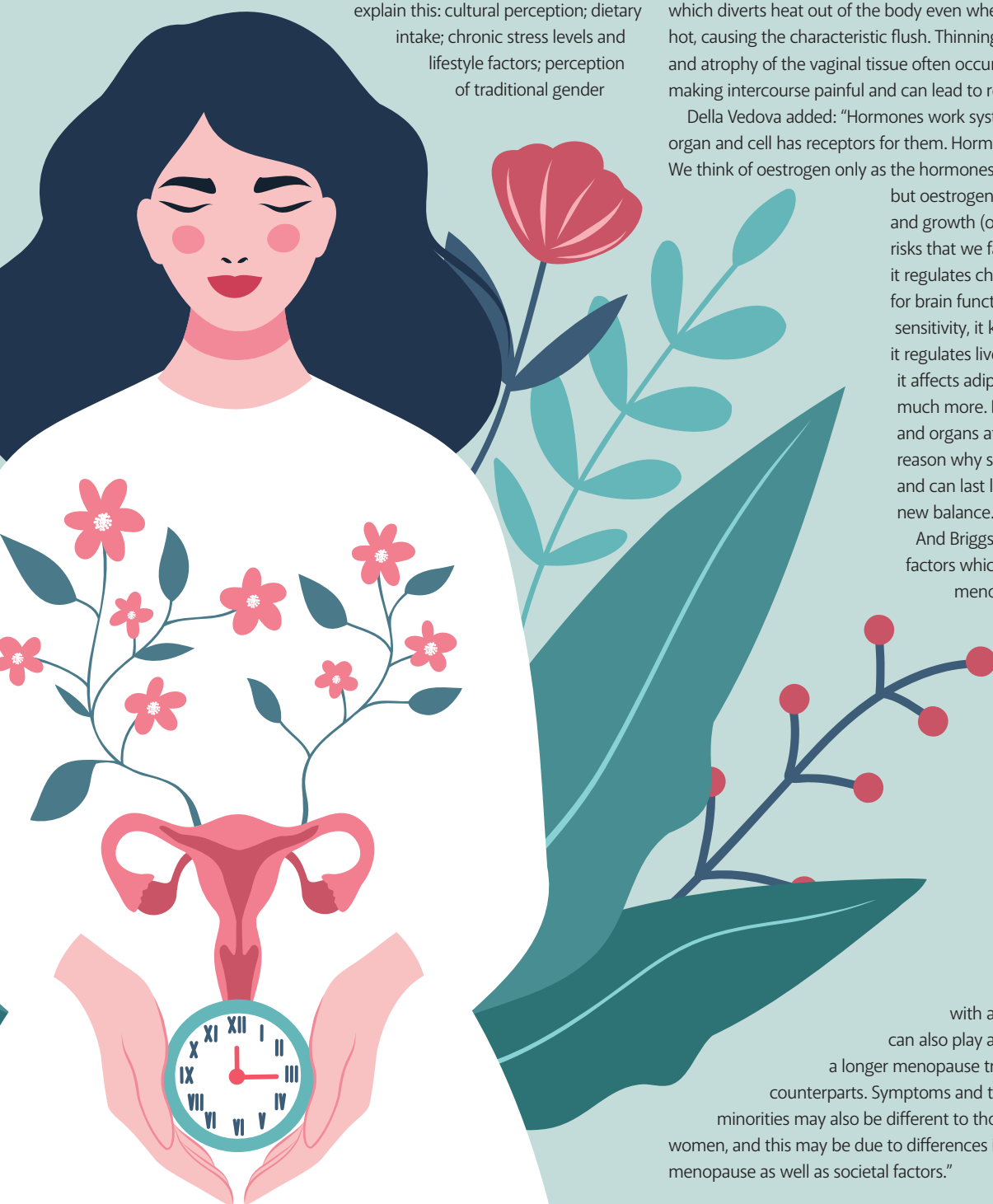
"Hot flushes are still quite poorly understood, but thermoregulation is dysregulated. The hypothalamus, which regulates temperature control, is also thought to be involved, mistakenly triggering blood vessels to dilate which diverts heat out of the body even when the body is not actually hot, causing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

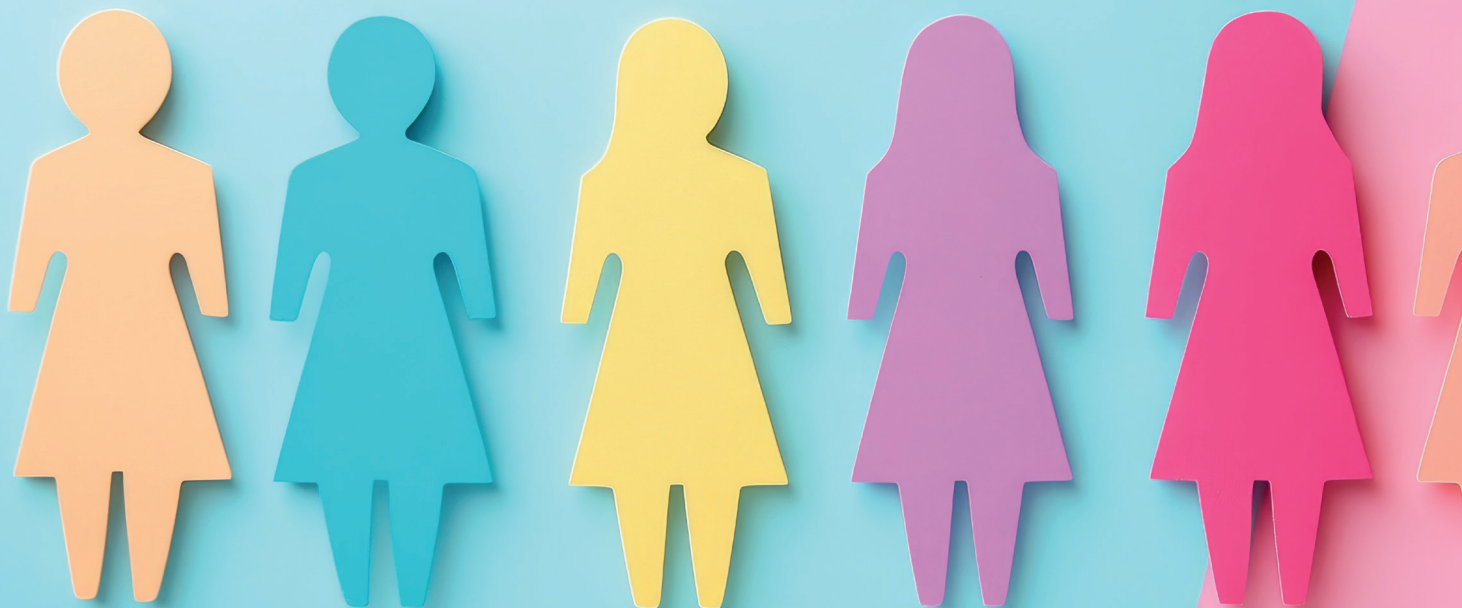
Della Vedova added: "Hormones work systemically, and every single organ and cell has receptors for them. Hormones are multi-functional. We think of oestrogen only as the hormones that makes women fertile,

but oestrogen is very important for repair and growth (osteoporosis is only one of the risks that we face as menopausal women), it regulates cholesterol levels, it is central for brain functions such as memory or pain sensitivity, it keeps our skin young and thick, it regulates liver function, it is a vasodilator, it affects adipose tissue metabolism and so much more. Hormones touch many systems and organs at the same time, and this is the reason why symptoms can be very different and can last long, as the body adapts to a new balance."

And Briggs pointed out: "There are many factors which determine the age at which menopause occurs. Genetics, age at menarche, number of pregnancies and use of oral contraceptives all have a role in determining menopause age. Lifestyle can also have an effect; smoking, heavy exercise, high intake of polyunsaturated fats and low sun exposure can all accelerate menopause, whilst alcohol intake, moderate exercise, high BMI and a diet high in protein and fruit and vegetables are all associated

with a later menopause. Ethnicity can also play a role as black women have a longer menopause transition than white or Asian counterparts. Symptoms and their severity in these ethnic minorities may also be different to those experienced by Caucasian women, and this may be due to differences in perception of the process of menopause as well as societal factors."





“Symptoms can start years before periods stop and, on average, last around four years after the final period, though for some, they persist much longer and can be highly debilitating, affecting quality of life and daily functioning.”

Symptom recognition

According to GenM, there are 48 different symptoms as part of the menopause, and some can be debilitating. It is also known that women can experience a range of symptoms without identifying it as the start of the menopause because they are not obviously hormone related.

Lindsay Powers, Nutritional Therapist and Head of Nutrition and Practitioner Services at Good Health Naturally, advised: “Symptoms are largely linked to a reduction in hormone levels. Oestrogen plays a vital role in the growth and maintenance of bone, so its decline can lead to decreased bone mass and strength, increasing risk of osteoporosis. Skin can become dry and less elastic, as oestrogen also supports collagen production, which maintains skin plumpness and moisture in body tissues. Weight gain is another common concern, partly because muscle mass naturally decreases with age, which lowers calorie requirements and slows metabolism.

“Oestrogen and other hormones influence many systems in the body, from the brain and bones to the skin, muscles, and metabolism. As these hormone levels decline, a wide range of symptoms can appear, affecting physical and emotional wellbeing. This is why women may experience hot flushes, night sweats, weight gain, low mood, anxiety, brain fog, joint pain, and more. Statistics show over 70 per cent of women in the UK report a variety of symptoms during menopause. These can start years before periods stop and, on average, last around four years after the final period, though for some, they persist

much longer and can be highly debilitating, affecting quality of life and daily functioning.”

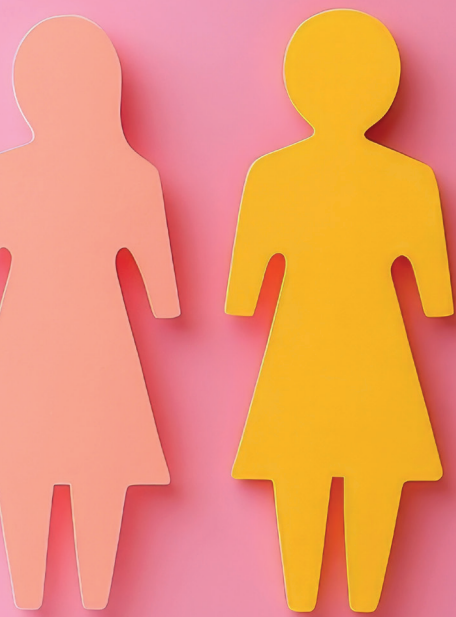
Sadler added: “Hot flushes are experienced by up to 80 per cent of perimenopausal women. Less talked about symptoms include a drop in libido and vaginal dryness, which can sometimes cause an increase in urinary tract infections. The immune system can also be affected as the calming effect of progesterone is lost, giving rise to an increase in allergies. Autoimmune conditions can be triggered too, such as Hashimoto’s thyroid disease, which underpins many cases of under-functioning or hypo thyroid. This is much more common in women than men and symptoms almost overlay many of those that characterise the perimenopause and menopause. Existing health problems can be exacerbated too. Joint pains, increased dryness, thinning and wrinkling of the skin and thinning hair are common, as collagen production is reduced in response to lack of oestrogen.”

And Briggs pointed out: “Symptoms of

menopause are often considered to be limited to hot flushes and night sweats, and this can sometimes be all that is expected by women as they approach perimenopause. However, there are a huge range of symptoms and not knowing what to expect can make the process much harder for women, and those around them at home and work, to deal with them effectively. As women reach, on average, their mid-40s, the level of oocytes (cells which mature into an egg) naturally decreases to the point at which follicle stimulating hormone will start to rise, due to a lack of feedback from these oocytes. Oestrogen will initially fluctuate and then decline, and it is this hormone which is responsible for many of the effects most associated with perimenopause.

“Two of the most common symptoms of perimenopause are hot flushes/flushes and night sweats, often known as vasomotor symptoms, with 72 per cent of women experiencing hot flushes and 58 per cent having night sweats, with sleep disturbances affecting 64 per cent. So far, the cause of these is not clear, but it is thought the fluctuations in oestrogen may lower endorphins and increase production of noradrenaline and serotonin, triggering increased heat loss. These symptoms can be embarrassing and uncomfortable, and in the most severe cases, can make sleeping and working difficult or impossible and have a significant effect on quality of life.

“However, there are many less well known, but equally if not more problematic symptoms women experience. Most are caused either



directly or indirectly by the drop in oestrogen; for example, decreases in oestrogen can cause lower serotonin, which is linked to depression and anxiety. Many symptoms are also inter-related as low serotonin can cause sleep and appetite issues, poor sleep can cause low mood and cognitive issues and vice versa, and hot flushes and night sweats can make women feel low, anxious and cause sleep disturbances. Therefore, it is often difficult to establish which symptoms are related directly to changes in oestrogen and which are caused by other symptoms.

"Currently, conventional treatments are focused on vasomotor and mental health symptoms, and include hormone replacement therapy (HRT), antidepressants and clonidine (a vasodilator), with trials being conducted on drugs such as gabapentin. However, side effects are common and include tiredness, mood swings, sleep problems and dizziness, all of which are potential symptoms of the perimenopause. Historical health scares regarding HRT and changes in prescribing guidelines have also meant women are forced or choosing to seek alternatives for the symptoms they experience."

And why such a vast range of symptoms?

Sadler explained: "One of the

reasons is that oestrogen receptors on cell membranes are not just in the reproductive tract. They are across many tissues and organs, including brain, bone, skin, kidneys and the digestive tract, including the liver. Oestrogen has numerous roles in the body, not just within the reproductive system. For example, it plays a role in the immune system. Fluctuating and declining progesterone plays a large role in perimenopausal symptoms too as it leaves oestrogen, which although declining, still dominant, causing commonly experienced symptoms including heavy periods, migraines and headaches, irritability, breast pain, anxiety and palpitations.

"Women are all different and the decline in hormones is not linear so effectively each woman will have a unique experience from this dance of hormones individual to her. Add to that the different amounts of stress, sleep and the multitude of other ways women differ in terms of their general health, genetics, and menstrual history and it's easy to start to see how no two women will experience the perimenopause in the same way."

Barrett continued: "Menopause is a biologically programmed shift in a woman's endocrine landscape, driven by ovarian senescence and a subsequent decline in oestradiol and progesterone. This transition involves a reorganisation of hormonal signalling, particularly in the hypothalamic-pituitary-ovarian (HPO) axis with wide-reaching effects on thermoregulation, neurotransmission, bone turnover, cardiovascular health, and immune modulation. Clinicians should also recognise the role of adrenal reserve during this time, as postmenopausal ovaries are no longer the primary source of sex hormone precursors.

"The ubiquity of oestrogen and progesterone receptors across multiple organ systems explains the wide symptom profile. These hormones influence mitochondrial function, inflammatory signalling, neuroplasticity, circadian rhythm, and metabolic homeostasis. As their levels fluctuate and eventually decline, symptoms can manifest across diverse domains, from vasomotor instability and insomnia to anxiety, cognitive fog, and sarcopenia. For some women, these symptoms are life-altering and may unmask or exacerbate pre-existing imbalances, such as elevated blood glucose or chronic inflammation. This is where a systems biology lens is invaluable for practitioners."

The role of western living

It's worth noting that women in other parts of the world can have a very different menopausal experience to those in western countries because factors like diet and lifestyle can be very different.

"Lifestyle and diet can make a huge difference to how the onset of perimenopause and menopause play out," Sparkes advised. "The simplest way to describe it, if systems are already depleted after a lifetime of chronic stress, food that is depleted in nutrients, dehydration, liver overload from toxins in skincare, food, alcohol, prescription medications etc., then when hormonal shifts start or accelerate then a woman's body is going to struggle to make up the shortfall and handle this transition as easily, making for a more troublesome and distressing perimenopause. That is not to say that dietary and lifestyle adjustments alone can dissipate all these symptoms but certainly could soften the blow."

Della Vedova added: "An indoor sedentary lifestyle rich in screen time, a diet rich in processed foods, and toxin exposure are factors that set the basis for an inflammation status. If we reach menopause with this picture, we are much more at risk of a wide spectrum of symptoms and conditions. Looking after our personal and individual wellbeing is key for a more successful hormonal change."

Sadler agreed: "A poor diet can lead to nutrient deficiencies like magnesium or low levels of omega 3, which can exacerbate symptoms. Poor diet can also lead to weight gain or poorly managed blood sugar control, which can play into hot flushes, anxiety, stress and sleep issues, and in the longer-term, affect bone and cardiovascular health. Research suggests the closer the diet resembles the Mediterranean diet, the less severe the symptoms.

"Exercise also plays role, and research shows that taking exercise can help manage many menopausal symptoms including irritability, insomnia, depression, fatigue and hot flushes. Stress hormones interfere with female hormone balance and can make symptoms such as hot flushes, brain fog and poor sleep worse. Finding ways to manage stress with tools like yoga, meditation and exercise can play a role in ensuring a smooth menopause experience. Journaling can be an excellent way to help manage stress levels and a good way to keep track of symptoms too."

In terms of managing some of the modifiable factors, these can be straightforward.

Briggs recommended: "There are several lifestyle medicines used with excellent effect for many perimenopausal issues. Hypnotherapy has been shown to reduce vasomotor symptom frequency and severity as effectively as pharmacological treatments, in some cases by 74 per cent, as well as improving sleep quality and sexual function. Mindfulness has also been shown to improve sleep quality and overall quality of life scores in perimenopausal women. Inhalation of lavender oil also improves sleep and reduces the frequency of hot flushes by 50 per cent. Several studies have also shown reflexology and acupuncture to be useful, particularly for vasomotor symptoms."

Nutrition and the menopause

So, looking at the role of diet in the menopause, what are the best protocols to recommend?

"Nutrition can play a significant role in the management of perimenopausal symptoms as well as reducing risk of health issues, such as heart disease and osteoporosis in post-menopausal women," Briggs commented. "Following a Mediterranean style diet is probably one of the most useful steps. This focuses on polyphenol, potassium and magnesium-rich fruits and vegetables, foods such as nuts and seeds which contain omega 3 and 6 fatty acids, olive oil and lean meats and oily fish, such as herring, mackerel, salmon, and sardines, which are also rich in omega 3 fats. Processed foods are avoided, and the emphasis is on consumption of fresh, unprocessed, or minimally processed foods naturally much lower in sugar, salt and trans and hydrogenated fats. A recent study found consuming this type of diet could reduce vasomotor symptoms by 20 per cent and it has also been found to be associated with health benefits relating to heart health, mood, glucose control, bone health and cognitive function."

And Powers advised: "The typical Western lifestyle, high in processed foods, caffeine, sugary snacks, stress, and low in physical activity, relaxation, and restorative sleep, can disrupt hormonal balance and potentially worsen menopause symptoms. In contrast, women in some cultures, such as Japan, often report far fewer or even no noticeable menopausal symptoms. Research suggests that diet is a major contributing factor. In particular, the high intake of soy-based foods, such as soybeans, edamame, miso, tempeh, and tofu, provides phytoestrogens and isoflavones, plant compounds with a chemical structure similar to oestrogen, which may help naturally support hormonal balance. Other sources include flax seeds and red clover.

"Lifestyle factors likely contribute as well. Japanese women traditionally eat a diet rich in omega 3 fatty acids from fish, with plenty of green vegetables and a lower intake of refined carbohydrates. They also tend to maintain a healthy weight and stay physically active, factors known to positively influence hormone health and symptom severity. It's best to reduce processed foods, sugary snacks, refined carbohydrates, and excess caffeine or alcohol, as these can disrupt blood sugar balance, raise stress hormones, and worsen symptoms such as hot flashes and mood swings. Instead, focus on whole, unprocessed foods that support hormone health, such as leafy greens, nuts, seeds, wholegrains, oily fish, avocados, and flaxseeds. Prioritise calcium, magnesium, vitamin K and D for bone strength, and include protein with every meal to balance energy and mood.

B vitamins (in foods like wholegrains, bananas, and sweet potatoes) and vitamin C-rich fruits and vegetables can help with stress resilience. Aim to 'eat the rainbow' daily for a wide range of antioxidants and choose organic where possible to minimise exposure to hormone-disrupting pesticides."

Sparkes went on: "Here are some specific tips to incorporate into your diet:

- Daily dose of phytoestrogens, such as flaxseed, good quality soya or tempeh.
- Antioxidants – ensure you are eating enough fruit or veg to get your rainbow foods in. These will support key systems such as your microbiome, liver and brain health.
- Keep well hydrated – make sure you are drinking plenty of good quality water; coconut water is naturally rich in electrolytes, which aid getting water into the cells.
- Fibre from a variety of plant foods for healthy bowel movements and binding to toxins for removal rather than them getting recirculated. A good rule is a raw carrot and tablespoon of milled flaxseed daily as a minimum.
- Up protein – this message seems to be so over-used but the amount of 'healthy diet' food intakes I see which are desperately low in protein is so common in my practice, yet as we age, muscle mass decelerates faster after 30, and so our protein intake therefore increases just for maintenance, so to build muscle, immunity and support live and brain health getting enough protein, and more, is a simple way to make a big difference."

Cullen also commented: "The more you can support your body through the change, the smoother the ride tends to be. Blood sugar balance is key for hormonal balance, so regular meals, complex carbohydrates instead of refined ones, plenty of protein, and snacks that don't spike your energy then crash it. Simple hacks like eating veggies first and opting for a savoury breakfast are game changers for blood sugar balance, and, in turn, for hormones!"

And Sadler went on: "The Mediterranean diet has been well studied and shown to improve hot flushes and night sweats, but also to help keep a healthy weight. Phytoestrogen foods may help to reduce menopause symptoms, including hot flushes and night sweats. These natural occurring plant compounds are weakly oestrogenic and have a stimulating effect on oestrogen receptors. This can be helpful both as production of oestrogen drops, but also in modulating the body's own oestrogen binding and effects if levels are high relative to progesterone. Including flax seeds, fermented sources of soya like tempeh and natto, pulses especially chickpeas and lentils, celery, green beans, cruciferous vegetables (broccoli, kale, greens, and cauliflower) and wholegrains can be helpful.

"Cutting out or reducing sugary foods and drinks helps maintain healthy blood sugar levels, which can help manage hot flushes. This supports the adrenal glands, which take over production of oestrogen and progesterone as ovarian production declines. It also helps reduce anxiety and stress levels and maintain a healthy weight. Adding in live yoghurt and kefir helps maintain a healthy gut microbiome, which plays a role in mood, anxiety, the immune system, and metabolism and weight."

As part of this, being aware of nutrient deficiencies is really crucial.

Sadler explained: "Protein requirement increases as oestrogen drops in order to maintain muscle mass, which is important for bone health too. Magnesium is often low for many women, especially if they are stressed as the body uses up available magnesium more rapidly. For women taking HRT, deficiencies in vitamins C and E, folic acid and magnesium, and possibly zinc and vitamins B6 and B12 are more likely. Oestrogen impacts nutrient absorption metabolism, or excretion by way of the liver, kidneys and gut, meaning less availability of these nutrients across the body and brain."

Barrett advised: "Lower oestrogen levels impact the absorption and utilisation of key micronutrients, particularly calcium, magnesium, zinc and vitamin D. Reduced stomach acid, common in this age group, also affects iron and B12 absorption. Chronic stress and sleep disruption can further deplete magnesium and B vitamins."

The role of oestrogen

One crucial area to note is what happens to the body when oestrogen begins to deplete – raising our risk of both osteoporosis and heart issues, among others. These are areas that need continual focus, even after the menopause.

Sadler explained: "Post menopause, many symptoms gradually decline but women can still find sleep a problem for some years and hot flushes even longer so many of the same nutrients and dietary advice still apply. More problematic in this period can be vaginal atrophy and bladder issues, including some degree of incontinence, weight gain and increased hair loss. Continuing with a healthy Mediterranean diet which includes phytoestrogens and minimises sugar and ultra processed foods should still be a priority to help manage these. Additional support from herbs like angelica, pumpkin seed, and cranberry can be helpful, as can D-mannose if urinary symptoms are problematic. Bone health requirements are also vital to address the increased risk of osteopenia or osteoporosis that comes as the protective effects of oestrogen are lost. Increasing risk of dementia, cardiovascular disease and metabolic problems should be

addressed too, but here again the Mediterranean diet is protective.”

Powers added: “Bone health remains a priority, and adequate intake of calcium, magnesium, vitamin D, and vitamin K is essential to prevent osteoporosis. Heart health becomes increasingly important, so include omega 3 fatty acids, fibre-rich whole grains, fruits, and vegetables to support cardiovascular function.

“Ubiquinol, the active form of CoQ10, can also help boost energy production and protect heart health. Maintaining muscle mass requires sufficient protein intake, while antioxidant-rich foods aid in reducing inflammation and ageing. Hydration and skin-supporting nutrients, such as collagen, support skin elasticity. Overall, a balanced, nutrient-dense diet with targeted supplementation helps manage post-menopausal health.”

Briggs added: “Many women become concerned with bone health during and after the menopause, as peak bone mass decreases sharply after menopause. Up to 50 per cent of trabecular bone and 30 per cent of cortical bone mass is lost, post menopause. The drop in oestrogen which occurs at this time is closely correlated to decreases in bone mass. It appears to reduce osteoclast formation and bone resorption and regulate bone formation, possibly via an effect on osteocyte numbers. Improvements in bone mass will be limited by dietary factors and our intake of bone building nutrients. Calcium is perhaps the most familiar of these and an adequate calcium intake is essential for the composition of bone, along with collagen. Bone is not a static tissue, however, and bone turnover is an important factor in building and maintaining density and this is where other nutrients and dietary factors will play a significant role.

“Vitamin D intake is closely linked to calcium, and low vitamin D impairs the absorption of dietary calcium. This leads to low calcium in the blood, which triggers parathyroid hormone (PTH) to stimulate the release of this mineral from the bone to maintain blood levels. Over the long-term, this will lead to low bone mineralization and the development of osteoporosis. Numerous studies of vitamin D, alone and in combination with calcium, have shown it is associated with a higher bone mineral density (BMD) and a lower risk of fracture. Vitamin K is also vital for bone, as it is required for the activation and carboxylation of vitamin K dependent proteins



and osteocalcin, which are involved in bone metabolism and the deposition of calcium in the bones. Vitamin K2, in the MK-7 form, is the best absorbed and clinically useful form of vitamin K. However, it is not generally widely consumed in the diet, as the main sources are fermented foods, particularly natto. Whilst the bacteria of the microbiome are known to produce some K2, there remains debate about whether this has a significant effect on circulating levels or vitamin K. Therefore, supplementation with a good K2/ MK-7 product is likely to be useful for most adults, particularly those concerned about bone health.

“Magnesium status is another area particularly relevant for bone health, and NDNS surveys have shown around 75 per cent of women in the UK do not consume a sufficient level from their diets. Low magnesium has been shown to soften bone, reduce remodelling by affecting osteoblast and osteoclasts, affect PTH and increase inflammation. It is also essential for the synthesis and activation of vitamin D in the body, which in turn supports the absorption of magnesium.

“There is also interesting evidence for the role of protein in bone health and mass, with studies as early as 1985 suggesting that amino acids from protein had a bone-building effect. Many studies have correlated protein intake with higher bone mineral density and content in various bones, including femur, neck and spine. Protein also has a better effect on bones when calcium intake is sufficient.”

Building nutrient foundations

Focusing on nutrient intake is crucial during

perimenopause, right through to post-menopause. Although diet comes first, women can benefit from supplements for symptom management and to bridge nutrient gaps.

Della Vedova advised: “Magnesium and B vitamins support nervous system and psychological function, chromium will help maintain a normal blood glucose, omega 3 will help with heart and nervous system support, as well as being the main ingredient of hormones themselves, and zinc contributes to normal metabolism, cognitive function, and healthy bones, skin, hair, nail, vision and immune system.”

Cullen added: “The hormonal shifts and added stresses on the body can use up magnesium and vitamin C more quickly. If periods are heavy or prolonged, iron deficiency and anaemia can become a real issue too. And digestion can slow down, so we don’t absorb nutrients as well as we used to. I recommend supplements, but it depends on the symptoms a woman is experiencing and so it’s about choosing wisely. I try to avoid more than three supplements at once. Some key ones I use are magnesium, brilliant for sleep, mood, hot flushes, and hormone support generally, iron for anyone with heavy periods or fatigue, sage for hot flushes and to help ease brain fog, agnus castus, which is brilliant if you’re getting heavy, flooding periods or PMS symptoms, and devil’s claw to help with joint aches and muscular pain.”

Briggs went on: “As some of the most common symptoms are vasomotor, then many recommended supplements are aimed at these symptoms. Soya isoflavones were first identified as having oestrogen-like effects in the 1960s.

They have been shown to reduce hot flushes and other vasomotor symptoms but also have been linked to bone and heart health due to their phyto-oestrogenic effects and to the fact that they bind to a group of oestrogen receptors. A meta-analysis including over 1,000 participants has also shown the soya isoflavones can improve cognitive function and visual memory in menopausal women."

Briggs also highlighted sage.

She explained: "Sage is phyto-oestrogenic and can also reduce hot flushes, in the most severe cases by up to 100 per cent. Sage is considered to have significant effects on brain health and cognitive function. As a plant, it is rich in polyphenols, which have antioxidant properties, and these include rosmarinic acid and caffeic acid. It is a combination of all of the polyphenols which appear to give sage a wide range of benefits for brain health, including the reduction of inflammation, depression and anxiety. One of the most widely studied and significant effects of sage on brain health is the effect it has on acetylcholine, one of the neurotransmitters involved in learning, memory, attention, and cognitive function. The breakdown of acetylcholine (ACh) is catalysed by the enzyme AChE and several species of sage can inhibit this enzyme, leading to an increased level of ACh, associated with increased neuronal transport and improvements in cognitive function. Some studies have also shown it to have useful effects on dopamine and serotonin, potentially making it useful for brain fog and low mood."

Powers also suggested: "Maca is becoming increasingly popular for managing stress and lowering cortisol. Some studies suggest it may help alleviate menopause symptoms, such as hot flashes and disrupted sleep. B vitamins, especially B3, B5, and B6, are valuable for stress relief, as deficiencies are linked to low energy, anxiety, irritability, and poor concentration. Collagen supplements support joints and cartilage while helping prevent premature skin ageing. They may also improve vaginal dryness and enhance elasticity in the urinary tract, helping to prevent stress incontinence."

Sadler added: "Magnesium is key for mood regulation and low levels increase depression and anxiety risk. It helps regulate the HPA-axis, which is central to regulating stress. Low levels can increase hyperactivity in the HPA-axis, predisposing women to feelings of stress and anxiety. Supplementing can enhance GABA, the inhibitory neurotransmitter. It also influences the body's circadian rhythm, in part by increasing melatonin levels, reducing the time it takes to fall asleep and improving sleep quality."

"Phytoestrogenic botanicals including hops, red clover and sage can be helpful. All can be useful for managing both oestrogen dominance and supporting the decline in oestrogen and

the resulting symptoms like hot flushes. Saffron can be beneficial for perimenopausal related mood swings, anxiety and poor sleep, but research shows it is helpful in reducing hot flushes. Adaptogens support the adrenal glands, which take over some hormone production as hormones produced by the ovaries decline. Ashwagandha is especially well suited as it is nourishing and calming and can help anxiety and stress but also sleep. Lemon balm has long been used to help improve mood, anxiety and sleep and therefore suited to women going through the menopause. It is good combined with theanine for stress. Brahmi or Bacopa monnieri might be useful for women experiencing brain fog. Research shows it improves cognition and memory but is also good for reducing anxiety and improving mood."

"Sage is phyto-oestrogenic and can also reduce hot flushes, in the most severe cases by up to 100 per cent. Sage is considered to have significant effects on brain health and cognitive function."

Sparkes continued: "My first rule of thumb is to make the dietary and lifestyle adjustments as a priority. Food supplements can then support this intake for optimal results. Everyone is unique in terms of their lifestyle, genetics and health picture so there is no one-size-fits all rule. Foundational support for this stage of life would include a probiotic for women, specifically designed to support female health this includes gut, brain and vaginal health and a high quality multi-nutrient providing all the key players of foundational nutrition in their optimal form in a therapeutic dose for everyday use."

Briggs went on: "One of the most important nutrients for brain function is the omega 3 fatty acid, docosahexaenoic acid (DHA), which can be found in algae and oily fish. This fatty acid is almost impossible to make from dietary intakes of alpha linolenic acid, the parent compound of the omega 3 group and is the main fat in brain tissue. DHA is also involved in regulating and supporting the synthesis and accumulation of other important compounds including phosphatidyl serine (PS). Both EPA and DHA are also important for improving mood disorders and lower intakes of omega 3 are associated with higher levels of depression and higher anxiety scores. Studies in perimenopausal

and postmenopausal women have shown a decrease in depressive symptoms and psychological distress.

"Recent findings suggest vitamin E can have phyto-oestrogenic effects and has been shown in small trials to reduce the severity and duration of hot flushes. Some studies have suggested topical use of vitamin E can reduce genitourinary symptoms, which includes vaginal dryness, atrophy, irritation and itching and urinary tract issues. Sea buckthorn berry oil, rich in omega 7 fatty acids, has also shown to be useful for vaginal atrophy and the health of the mucosa in this area. Maintaining adequate intake of B vitamins may be useful for menopausal symptoms. Vitamin B6, often used for symptoms of PMS, can be relevant for similar symptoms experienced during perimenopause. B6 is involved in the production of neurotransmitters such as dopamine, serotonin, GABA and melatonin and is indicated for issues such as low mood, mood swings, and sleep."

Also keep in mind the powerful support that medicinal mushrooms can offer.

Barrett advised: "For clinicians, incorporating functional mushrooms such as reishi and cordyceps into nutritional protocols may support stress resilience, immune regulation, and energy metabolism. Reishi is particularly helpful in addressing sleep disturbances, mild anxiety and immune dysregulation, while cordyceps may aid in restoring vitality, libido and ATP production. Lion's mane may support cognitive health and gastrointestinal integrity, potentially enhancing nutrient assimilation via modulation of the gut-brain axis."

Per Bendix Jeppesen, Associate Professor at the Department of Clinical Medicine, Aarhus University at Aarhus University Hospital, turned the focus on fermented red clover: "Isoflavones from red clover bind to estrogen receptors (ER), primarily ER- β (found in adipose, liver, muscle and other tissues). Isoflavones can inhibit lipogenesis (fat formation) and stimulate lipolysis (fat breakdown). They affect PPAR γ and AMPK, which regulate fat metabolism and energy homeostasis. Isoflavones have anti-inflammatory properties that can reduce chronic low-grade inflammation in adipose tissue, a known factor in the development of abdominal obesity and insulin resistance."

"Consumption of fermented red clover extract can potentially affect the composition of the intestinal microbiota, which may influence both digestive processes and hormonal signaling pathways related to fat metabolism. The role of the microbiota in regulating energy balance and fat storage is well documented, especially in animal models, where changes in the gut microbiota have been shown to affect both metabolic profile and adipose tissue composition."

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Structuring your COLLAGEN recommendations

Collagen has become the go-to supplement as awareness of its importance in both skin and joint health has risen. Here, experts discuss the benefits, and the important factors to consider when recommending collagen supplements.

A simple search of collagen on Google returns millions of pages all extolling the benefits of this protein. And while we know that collagen is a critical component of so many aspects of health – and in many cases, supplementation is needed – the sheer volume of supplements now available on the market risks causing confusion about what people need and brings with it sometimes concerning quality of products.

Kat Bright, Registered Nutritional Therapist and ambassador for Bone Balance, commented: “The heightened awareness around collagen stems from a combination of scientific interest, consumer demand and targeted marketing. This surge in demand has led to a wide variability in supplement quality. A number of products have been bought to market labelled vegan collagen. While these products might contain herbs, amino acids or nutrients to support collagen formation, they don’t contain actual collagen in their ingredient list. Not all collagen supplements will be equally effective. It is important to match the type of collagen to the need of their body.”

Laura Dwyer, Technical Educator and Writer at Biomedica, went on: “Collagen-based products are

a growing market, potentially due to the related dermatological and orthopaedic benefits. Furthermore, the beauty and wellness industries have heavily promoted collagen, contributing to widespread recognition and appeal. However, practitioners must recognise that not all collagen supplements are created equal, and they should evaluate the clinical evidence, particularly formulation and dosage, before prescribing them to their patients.”

And Catherine Gorman, Nutritionist and Health Advisor at Good Health Naturally, advised: “Social media is saturated with adverts extolling the benefits of collagen. We are bombarded with images of happy, wrinkle-free women pouring it into coffee or hot chocolate and telling us it is has changed their lives. Science does reinforce collagen’s potential benefits, particularly in areas like skin elasticity and joint function. However, this surge in demand has led to a saturated market, where the quality of collagen supplements can vary widely. Many consumers are unaware of the different types of collagen like marine, bovine, or types I, II and III. They are not always clearly labelled, leading to confusion and potentially ineffective choices.”



The power protein

Collagen is a protein that plays an essential role in many functions.

William Jordan, Nutrition Advisor at Viridian Nutrition, explained: "Collagen is the most abundant protein in the body. It's a fibrous, structural protein, which means it is used for structural integrity and strength in almost the entirety of our bodies, including bone and soft tissues such as muscles, intestinal lining, ligaments, tendons, organs, and most famously, skin.

"Most famously, collagen is known to improve skin elasticity and hydration. Making up approximately 70 per cent of the dry weight of our skin, collagen allows water molecules and hyaluronic acid to bind to it, keeping our skin hydrated and moisturised. Collagen supports healthy hair and nails as it provides the amino acids needed for the formation of keratin, the structural protein in hair and nails. Collagen helps support healthy hair follicles as it can act as an antioxidant. Nails also receive similar benefits, as well as possibly making nails stronger, more resilient, and even reduce breakage.

"Collagen also promotes healthy joints as it's a foundational building material in our cartilage, ligaments, tendons, and bones. Collagen provides the body with the building blocks to repair, rebuild, and improve our tendons and ligaments. This can reduce inflammation and improve overall joint health as collagen can make joints stronger and more flexible. As collagen can improve tendons, ligaments, and cartilage, it can help stabilise and strengthen our joints and reduce discomfort from movements. Collagen is the main material component in bone mass with approximately 90 per cent of bone being collagen, 60 per cent being the inorganic constituent and 30 per cent being the organic component. Higher amounts of collagen in our body can help

reduce bone degradation and increase bone formation and density, among other factors such as weight, physical activity, and lifestyle.

"Collagen, being a structural protein, is an important material used to help repair and support the health of the intestinal lining. It is thought to act like mortar in a brick wall. Low collagen levels are associated with a leaky gut. Collagen may offer benefits to cardiovascular health; it is part of the structure of blood vessels and supplementation may improve artery and blood vessel flexibility and elasticity, reducing stiffness, which can potentially improve blood pressure."

Dwyer added: "Derived from the Greek word 'kolla', meaning glue, collagen is the most abundant protein in the body and provides the main structural and mechanical support in connective tissues, such as bone, joints, cartilage, tendons, ligaments, blood vessels and skin.¹ It is present in the interstitial tissues of organs, where it contributes to the stability of tissues and maintains structural integrity.² Consequently, without collagen, human beings would basically be reduced to a clump of cells connected by a few neurons.

"The term collagen comprises a large family of fibrous proteins that are characterised by a unique triple helix structure. The main amino acids that make collagen are proline, glycine and hydroxyproline. The human body contains at least 28 types of collagen (type I-XXVIII), with type 1 being the most abundant.³ The different types of collagen have been designated according to their order of discovery, rather than their affinity with a given tissue.⁴ When ingested as collagen peptides, the body rebuilds all types of collagen."

Sarah Carolides, Nutritionist and functional medicine expert, who is Head of Nutrition at Zooki, continued: "Collagen is a long chain protein that makes up a large part of the extracellular structural matrix in all mammals and many other organisms. It is made up of several amino



acids alongside vitamin C, which is essential for its manufacture. It's not considered a complete protein as it doesn't contain all nine essential amino acids. Its structure is a triple helix shape, similar to DNA, and depending on the mineralisation, it can either be quite elastic, or rigidly strong. The helix is the most abundant protein inside the human body, and we make all the collagen we need until about our mid-20s. We make it from taking in the component amino acids or collagen peptides from mostly animal sources.

"As the body's main structural protein, it forms the matrix that underlies every solid structure, from the cornea in the eyes to bones, teeth and skin. It makes up one to two per cent of muscle tissue (six per cent of skeletal muscle) and is also responsible for the strength of tendons, blood vessels and even nails and hair. It also has active functions in that collagen peptides bind to calcium, assisting its absorption and transport into bones."

And Kirsten Humphreys, Business Development Manager and Nutritional Therapist at Bare Biology, went on: "Your body makes its own collagen proteins from the amino acids, proline, glycine and hydroxyproline. All three (and hydroxyproline in particular) are hard to come by from diet, unless you regularly eat organ meats or foods such as bone broth. Collagen supplements are brimming with these amino acids. When you eat them, they are absorbed by the small intestine and circulated into your bloodstream.

"What happens next is the subject of two different schools of thought. The conventional view is that the body uses the amino acids to make new collagen directly. But more recently, scientists have come to believe that the presence of these amino acid fragments in the bloodstream tricks the body into thinking there's been a collagen breakdown. Believing that repair is urgently needed, it stimulates your own fibroblasts to produce more collagen, elastin and hyaluronic acid. Most collagen is sourced from animal tissues, which naturally contain the same amino acids your body uses to build and repair its own connective tissue."

Keri Briggs, Senior Brand Specialist at Lamberts, addressed what happens to our collagen levels as we get older.

"As we age, production slows, and breakdown can begin to outpace regeneration of this compound. Compounds known as matrix metalloproteinases (MMPs) are key in the breakdown of collagen. MMPs are vital for embryonic growth, the formation of new blood vessels and wound healing. However, when the expression of MMPs is increased, this can lead to the breakdown of collagen outpacing new collagen production," she advised.

"Studies have shown increased expression of MMP-13 in cartilage tissue of people with osteoarthritis and that this may be responsible for the development of this condition. There is also compelling evidence to show that exposure to UV light has a significant effect on the expression of MMPs, increasing their production and therefore collagen breakdown. As MMPs are involved in healing, their presence is increased by inflammation. However, chronic inflammation, which is abnormal, will lead to an overproduction in these compounds and increased collagen degradation."

Martina Della Vedova, Nutritional Advisor at NaturesPlus, continued: "As we reach our mid-20s, our ability to make collagen starts declining, and by the age of 60 we have only 50 per cent of our collagen left in our tissues. Everyone can be susceptible to low collagen levels. Surely age is a factor, but a lot depends on our overall wellbeing and how we choose to eat and live. Also factors such as alcohol consumption, smoking, excessive sunlight, excess sugar intake, stress, and nutrient deficiencies can speed up the collagen damaging process."

Ben Souler, founder of the Planet Paleo brand, also commented: "Collagen production declines as we age, however factors that impact that relate to metabolism. Synthesis of amino acids is directly impacted by metabolic function, and without adequate dietary intake of key nutrients such as glycine and proline, the body needs to use more energy to produce these amino acids from other protein sources. This is why supplemental collagen is so effective

as it provides large quantities of these amino acids that are generally absent in other foods, requiring less work for the body. Inflammation can also be a factor in collagen degradation."

As part of understanding the science behind protein, we must also raise the signs to look for when someone may be lacking in adequate collagen.

Bright added: "Low levels of collagen are linked to low dietary protein intake in the body. Collagen is synthesised from amino acids derived primarily from dietary protein as well as cofactors like vitamin C, zinc and copper. Therefore, insufficient protein intake can directly impair the body's ability to produce and maintain adequate collagen levels.

Signs that we are low in dietary protein and therefore collagen could be loss of skin elasticity and sagging, poor wound healing, muscle wasting or difficulty maintaining muscle mass."

Briggs went on: "An overall loss of collagen can be associated with issues such as joint discomfort and stiffness, fluid retention, increased bruising, and changes in the skin. These are often the most visible sign of collagen depletion in the body and can include an increase in fine lines and wrinkles, less elasticity, sagging of the skin and the skin becoming thin and easily damaged."

Meanwhile, Gorman advised: "There are several signs which may indicate collagen levels are too low. These include skin which appears wrinkled, crepey or sagging. Brittle nails and thinning hair are also common signs, as collagen plays a vital role in promoting their strength and growth. Delayed wound healing can also be a sign, as collagen is essential for tissue repair and regeneration. Loss of muscle mass and weak or aching muscles may be a sign of collagen deficiency, as low levels can cause muscle shrinkage. Tendons and ligaments may also become stiffer and less flexible. Joint pain or stiffness is another possible indicator, as collagen is a key structural component of cartilage."

Jordan also commented: "Low collagen may even impact our blood pressure as collagen helps maintain the strength and elasticity of blood vessels. When collagen levels are low, blood vessels become stiff and less elastic, making it more difficult for blood to flow easily."

"Everyone can be susceptible to low collagen levels. Surely age is a factor, but a lot depends on our overall wellbeing and how we choose to eat and live."



Wide-reaching benefits

Collagen has certainly grown in popularity in recent years, with many people turning to supplementation from an anti-ageing perspective, given its role in skin health. But as practitioners, you will know just how far-reaching the benefits are and there is certainly an educational message required here.

Gorman commented: "While collagen is commonly associated with skin health, it plays a much more extensive role, it's the most abundant protein in the human body and vital for maintaining the strength, flexibility and integrity of tissues and organs. The whole musculoskeletal system depends on collagen.

"It is a major component of cartilage, which helps cushion joints, supporting flexibility and helping to prevent conditions such as osteoarthritis. It is crucial for bone health too, providing the soft framework onto which calcium and other minerals are deposited. This framework gives bones their strength and helps them resist fractures. Tendons and ligaments which attach to muscles and bones rely on collagen for strength and elasticity. Collagen also contributes to both the structure and strength of muscle tissue and plays a role in muscle repair following injury. Collagen is essential for maintaining the integrity of internal organs and supports the structure of blood vessel walls, promoting healthy circulation."

Bright added: "Collagen provides structure, support and strength to skin, muscles, bones and connective tissues, which makes it indispensable for overall physiological function and health:

- **Structural strength:** Collagen provides tensile strength and structural scaffolding to tissues such as skin, bones, tendons, ligaments and cartilage.
- **Skin integrity:** Collagen fibres in the skin dermis form a network that maintains skin firmness, hydration and elasticity.
- **Bone strength:** In bones, collagen forms a fibrous network upon which minerals such as calcium are deposited. This combination gives the bones strength and flexibility, reducing the risk of fractures.
- **Vascular structure:** Collagen contributes to the structural stability of blood vessels and internal organs.

- **Wound healing:** Collagen provides a matrix for new cell growth, facilitating the repair of damaged tissue."

Dwyer continued: "Apart from its structural role, collagen also supports numerous processes in the body, including wound healing, cell proliferation, migration and differentiation, and various inflammatory processes.³ Collagen turnover and remodelling are crucial for maintaining tissue homeostasis and for regulating physiological processes such as wound healing. Ageing, as well as environmental, diet and lifestyle factors, can impact collagen biosynthesis and degradation. Dysregulated collagen turnover is associated with a variety of pathologies such as vascular disease, rheumatoid arthritis, osteoarthritis (OA), osteoporosis, cancer and fibrosis.^{3,5,6"}

Briggs went on: "Taking collagen has been shown to have significant benefits. Several studies have shown that taking 2.5 a day of BAPs have benefits for the health of the skin, hair, and nails, increasing skin collagen by up to 60 per cent, increasing skin elasticity by up to 30 per cent, reducing eye wrinkles by up to 49 per cent, and reducing nail splitting, increasing nail growth and increases hair thickness.

"Studies in osteoarthritis and joint issues have shown similar positive effects. A meta-analysis showed that collagen supplementation improved both WOMAC scores (which assess stiffness, pain and physical function) and VAS score (which measures pain) in those with symptoms of osteoarthritis."

And Della Vedova added: "Collagen is essential for structure, support, and protection of tissues as well as complex movements and connection among different tissues. In the human body, we know of 28 different kinds of collagen. Different kinds have slightly different shapes to serve a better function in different tissues. Everyone knows of the presence of collagen in bones, joints, and skin, but it is important to remember that collagen is the component that gives a shape to internal organs, it protects and keeps our blood vessels elastic and stretchy, it is part of mucosal lining, is part of muscle and connective tissue all over the body."



Food focus

Collagen can be found in a wide range of foods – although many people are unlikely to be getting adequate amounts of this, and there may also be factors in their diet that can inhibit absorption, which is where a supplement can come into play.

Carolides advised: “The richest food sources of collagen come from the connective tissue of other animals. Sources such as chicken bone broth, fish skin, red and white meats are all high in the collagen peptides that the body can absorb and utilise directly. In theory, we could get enough from food if we ate a large amount of animal protein daily. However, we would need to increase and absorb larger amounts of animal protein as we age in order to keep up with the body’s natural decline in collagen production. Many people as they age tend to eat less protein, often because their hunger goes down, but also because they find it harder to absorb as they produce fewer digestive enzymes and stomach acid.”

And Gorman recommended: “Bone broth is one of the richest natural sources of collagen. Simmering animal bones and connective tissue in water extracts collagen along with other beneficial nutrients like calcium, magnesium, phosphorus, glucosamine, chondroitin and various amino acids. While eggs don’t contain connective tissue like meat or bone products, egg whites are a good source of proline, one of the amino acids essential for collagen production.”

Briggs also advised: “Collagen is not necessarily an easy nutrient to obtain directly from the diet, as many of the foods it is found in are not widely consumed. Bone broths, organ meats and chicken skin will all provide collagen, as well eating whole fish (including the bones and skin). However, these do not necessarily feature widely in many people’s diets and collagen content may be variable, so taking a supplement, with the right form of collagen and at the right dose is often a preferable option to guarantee intake.

“Consuming plenty of protein-rich foods, especially those providing proline and lysine, such as meat fish and eggs, will provide the amino acids required for the body to synthesise collagen. Vitamin C is also important as this nutrient is found in high levels in the skin and is also diminished in older and photodamaged skin cells. It is required for the conversion of both proline and lysine, which will then stabilise collagen. As an antioxidant, vitamin C also has an indirect effect on reducing activity of MMPs. Zinc has also been shown to prevent MMP breakdown of collagen.

“One of the best sources of nutrients to support collagen production are grapeseed and bilberry extracts, which provide compounds

called anthocyanidins. These have been shown to increase collagen production in fibroblasts, stimulate the cross-linking of collagen, as well as inhibiting MMP induced collagen breakdown.”

Della Vedova added: “The other big group of foods we should be looking at are antioxidants, as they are the main cofactors the body utilises to make collagen from scratch and to protect it when exposed to damaging agents. Load up on vitamins C, E, A, zinc, selenium, and resveratrol-rich foods. Great options could be kiwi fruit, peppers, Brazil nuts, pumpkin seeds, berries, pomegranate, apples, beets, gently steamed leafy greens, spices and herbs.”

Dwyer went on: “Whole collagen in foods needs to be broken down during digestion in the gut into smaller peptides and amino acids, which are then utilised by the body to build other proteins or distributed to where they are needed.¹⁷ Unfortunately, there is a lack of evidence to show that eating collagen found in food sources directly benefits skin or joint health. Moreover, regular consumption of collagen-rich foods, especially red meat, is not routinely recommended for daily intake due to their high saturated fat content and established links to inflammation and increased health risks.”

“Bone broths, organ meats and chicken skin provide collagen, as well as whole fish. However, these do not necessarily feature widely in people’s diets and collagen content may be variable, so taking a supplement, with the right form of collagen and at the right dose, is often a preferable option to guarantee intake.”



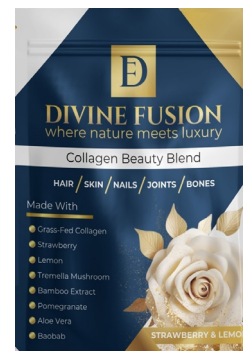
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The role of supplementation

Many people can be lacking in collagen, and this can especially be the case as we get older, and our levels can be lower. Therefore, recommending a supplement is beneficial.

Dwyer advised: "Collagen naturally declines with age as dermal collagen fibrils undergo progressive loss and fragmentation. During ageing, collagens are modified by mineralisation, accumulation of advanced glycation end-products (AGEs), and the depletion of glycosaminoglycans (GAGs), which affect fibre stability and lead to greater collagen breakdown.^{15,16} Collagen decline is also influenced by a combination of intrinsic (genetics, hormones and metabolic activity) and extrinsic factors (prolonged sun exposure, smoking, air pollution, harsh chemicals, and poor nutrition), which accelerate the degradation of collagen and other essential components like elastin and hyaluronic acid.^{15,16}

"Collagen supplementation is generally recommended when there are signs and symptoms of collagen degradation, such as osteoarthritis, joint pain and stiffness, connective tissue disorders, poor wound healing, clinical signs of ageing, poor skin barrier function, and hair breakage. Given that collagen loss starts from age 20, and those after 40 years can lose around one per cent per year,¹⁸ most patients will benefit from collagen supplementation. However, since collagen supplements vary widely in their source and composition, practitioners should critically assess the scientific evidence behind specific ingredients to ensure their clinical relevance and effectiveness."

Jordan added: "Lifestyle factors also can influence collagen production and influence the collagen currently existing in our body. Smoking is linked to a decrease in collagen production of type I and III and increase the breakdown in the skin which can lead to premature facial wrinkling and poor wound healing. A poor diet can lead to collagen loss and not allow the body to produce collagen successfully. High intake of sugar and refined carbohydrates can increase the production of glycosylated collagen, which can negatively impact the structural integrity of collagen. Furthermore, low protein diets can also contribute to loss of collagen, or reduced collagen production, and as we age, our protein requirements get higher so this should be accounted for.

"High amounts of UV rays deform collagen. UV rays cause oxidative stress in the body, which can fragment collagen and reduce the skin's structural integrity by decreasing its normal function and reduce skin elasticity, known as photo-degradation. High stress can cause collagen to breakdown and lead to wrinkles. Cortisol is the primary stress hormones and one of its functions is a catabolic effect, meaning that it breaks down various tissues, including collagen, primarily in the skin."

And Bright added: "Collagen supplementation can be beneficial for certain individuals with increased physiological demands or reduced collagen production. This might include:

- **Older adults:** Due to natural collagen decline.
- **Those with sarcopenia:** To support muscle mass when combined with exercise.
- **Athletes:** To aid joint and connective tissue recovery.
- **Those with bone health concerns:** Such as those with osteopenia or osteoporosis.
- **Those recovering from surgery or injury:** To support tissue repair."

And Gorman suggested: "Research suggests collagen peptides may support bone formation, leading to increased bone strength and mineral density, which can help reduce the risk of osteoporosis. This could be especially beneficial if taken alongside bone-supporting nutrients like vitamin D, magnesium, boron and vitamin K. People experiencing joint discomfort or osteoarthritis may also benefit from collagen

supplementation, particularly type II collagen, which plays a key role in maintaining cartilage integrity. Notably, research has shown that type II collagen peptides significantly improved knee osteoarthritis symptoms in elderly women. These benefits may be enhanced when collagen is taken together with other joint support nutrients like chondroitin, glucosamine and hyaluronic acid. Collagen is also essential for the repair and regeneration of ligaments, tendons, and muscle tissue, making it a valuable supplement for those recovering from injury."

However, when it comes to recommending a supplement, there are some really important factors to consider.

"When comparing collagen supplements, various factors may determine what is best for each individual patient," Dwyer commented. "A variety of collagen-based products on the market only provide collagen peptides derived from bovine, porcine, or marine sources and, as such, are not suitable for vegans or vegetarians. Clinical studies supporting these types of supplements require large doses (up to 15g) and are often only available in powder form. Moreover, collagen peptides are not a complete protein and naturally lack tryptophan; therefore, long-term use may potentially lead to a relative deficiency, especially when relied upon as a protein supplement during periods of inadequate dietary protein intake.

"Eggshell membrane is a wholefood source of collagen that naturally contains native collagen, along with beneficial compounds such as glucosamine, chondroitin, glycosaminoglycans (GAGs), lysosomes, elastin, sulphur-containing amino acids, and hyaluronic acid. Suitable for vegetarians, this form has been clinically studied, with evidence supporting effective daily doses of 300–500mg,¹⁹⁻³⁰ which is typically offered in capsule form for convenient use. Therefore, when prescribing collagen, practitioners should prioritise products supported by clinical evidence, ensure convenient dosing formats, and consider vegetarian alternatives to accommodate dietary preferences."

Briggs highlighted the importance of getting the right type of collagen for the need of the client: "Collagen supplementation is a good option for reducing these issues, but it is important to ensure that the right type of collagen is taken. To date, 28 types of collagen have been identified and numbered from one–28 (I–XXVIII) and all have different structures and functions. The most common is type I, which is the most relevant type for skin health, as it makes up 70 per cent of the total skin collagen. Skin also contains around 10 of type III collagen, along with tiny amounts of types IV, V, VI and VII.

"If you are using collagen for joint health, then a form providing type II collagen would be the best option, as this is the form found in joints and the supporting tissues. Different sources of collagen will provide different forms of collagen, for example, marine collagen tends to be more type I and II, whilst bovine is more I and III. Generally, porcine collagen is considered to be the most similar to human collagen and is slightly less likely to cause an immune reaction than bovine collagen.

"It is also important to choose a collagen in a form which can be assimilated well by the body. Several different types can be found, ranging from native or intact collagen to bioactive peptides (BAPs). Some questions have been raised regarding the absorption of collagen, as the molecule size is large, and it can be insoluble. Undenatured collagen is often used to exert benefits by stimulating an immune response as it remains intact in the digestive system. BAPs are absorbed by the body making them a useful option to considered for health benefits."

And Jordan commented: "Collagen has become a vastly more popular supplement in recent years compared to 20 years ago, as collagen powders, infused coffees, protein bars, and even collagen waters are on the market and have become more widely available to consumers.



There is no single reason why collagen's popularity exploded, but more awareness of the benefits, an ageing population, and more people going to the gym in the UK than ever before, and trends and interest from the beauty market have most likely contributed to this.

"With collagen becoming more popular, more and more brands sell collagen supplements. Marine (fish) and bovine (cow) are the most common sources of collagen, however, these can greatly vary in quality as excipients, fillers, flavours, and masking agents are commonly used. Marine and bovine collagen are not the same as human collagen, so the body needs to break it down and then rebuild it into human type 1 collagen. Marine collagen may contribute to unsustainable fishing practices if fisheries are overfished, which can lead to a decline in marine biodiversity.

"For vegan and vegetarian sources, it is recommended to look for a supplement that provides the pro-factors for collagen, a blend of the amino acids that make up type I collagen. As this is an amino acid blend and not collagen, the body needs to do less work in order to produce collagen."

Shouler continued: "The collagen is only as good as the animal it came from. Collagen and bone broth from sources that are certified grass fed, wild caught or organic are the ways to ensure the protein is of the best quality. Always look out for certifications on the label; terms such as 'pasture raised' and 'wild caught' are often used by brands without any actual evidence that this is the case."

Humphreys went on: "When choosing a supplement, we bang on about the source because, just like buying good quality food, it's better for your body, too. Our marine collagen comes from wild, sustainably caught cod. Our bovine collagen is sourced from Swiss & EU, grass-fed cattle raised to EU-approved welfare standards, so we can promise it's free from hormones, antibiotics and other nasties."

And Carolides advised: "I think the message is finally getting out that collagen is about more than just skin. There is an increased awareness about the importance of exercise and muscle strength to prevent age-related decline and the increasing rates of osteoporosis and sarcopenia which both benefit from collagen supplementation. However, there is definitely a mixed quality of collagen supplements available, and the consumer needs to be aware of certain factors when they choose a supplement

"Firstly, the collagen peptides must be hydrolysed (preferably using enzymes) down to a size that the body can actually absorb. Collagen itself is a large molecule that needs to be broken down into much smaller peptides before it can cross the intestinal wall. You are looking for peptides of 10kDa or less which the digestive system can easily utilise. Next, make sure the collagen comes from a reputable source. Whether you choose bovine or marine collagen, the source should be organic and if marine, show below traceable amounts of heavy metals or toxins. As collagen is mostly contained in connective tissue, some of the cheaper supplement companies will source their collagen from slaughterhouse waste, which is not always great quality.

"Although there are at least 28 different types of collagen, type 1 is the most abundant in the body, easily absorbed and almost exclusively contained in marine collagen. Bovine collagen contains less type 1 but also other types. Any supplement should also contain vitamin C, which stimulates the body's natural production of collagen. Finally, the amount of collagen contained in the dose is important. I recommend everyone take 5g a day from their mid-20s onwards to shore up their natural decline in production, but from 40 or so, I advise they increase to over 10g. Research shows that the benefits of taking collagen supplements increases as the dose increases to about 15-20g a day but then tapers off beyond that level."

EXPERT ADVICE

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

Q

What are the most common reasons for congestion and what is the best respiratory health protocol to help manage it?

ALISON CULLEN ADVISED: A variety of factors is driving the increasing incidence of stubborn congestion. Some of the most common are a preponderance of dairy products and foods containing refined sugars, reduced immune function efficiency, leading to recurrent respiratory tract infections, antibiotic overuse, environmental irritants such as artificial air fresheners, alongside a lack of actual fresh air, and poor posture causing shallow breathing.

Most people would probably not associate their food with snotty congestion, but adjusting the diet can be a surprisingly effective strategy. It does require some time and attention, rather than being a quick fix.

Dairy products can trigger increased mucus production and thicker mucus,¹ especially in those sensitive to dairy, and those with high dietary content of dairy. Complete avoidance of dairy can alleviate even long-standing congestion after one to three months. Refined sugar drives inflammation, adding to swelling and constriction of airways. Refined sugar also hampers immune function, increasing the chances of respiratory tract infections that damage mucus membranes and cause further inflammation.

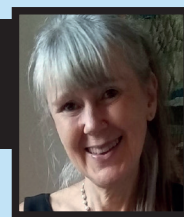
Repeated infections come with the risk of antibiotic use, which may cause fungal infections that again trigger inflammation. Antibiotic overuse is associated with lowered immune function, via disruption of the gut microbiome, in an unpleasantly vicious circle.

Getting more outdoor time and reducing exposure to chemicals in (for instance) artificial air fresheners and other heavily-laden household products will strengthen

the respiratory tract and reduce inflammation, as will breathing exercises and improved posture, both of which allow the lungs to fill more effectively, increasing oxygenation. The vulture-type slump so commonly seen in those hunching over screens and phones reduces lung expansion, and the shallow breathing that follows may contribute to anxiety, which is another inflammatory driver.

The herb, plantago, is a traditional remedy for clearing the ear/nose/throat tract of excess mucus, whilst toning the mucosal membranes and supporting healing processes. It can be used for both children and adults and is not contraindicated with any medication. Non-steroidal nasal sprays that contain essential oils known to support healthy dilation of nasal

tissue without rebound congestion can also be supportive.



ABOUT THE EXPERT

Alison Cullen is an experienced

nutritional practitioner with a clinic in Ayrshire, Scotland. She currently combines running her clinic with the role of Education Manager for A Vogel. Alison lectures, trains and writes extensively on health issues, which she finds endlessly fascinating.



Q

Can you explain the benefits of the anthocyanin, cyanidin-3-glucoside, and the best approach to getting an adequate intake?

JULIE WESTON EXPLAINED: Anthocyanins (from the Greek 'anthos', a flower, and 'kyanos', dark blue) are naturally occurring plant pigments that give fruit and vegetables their deep purple, blue and red colours. While anthocyanins differ between plants, there are six main types found in nature: pelargonidins, cyanidins, delphinidins, peonidins, petunidins, and malvidins.

One of the most abundant naturally occurring anthocyanins is cyanidin-3-glucoside (C3G). This is found in high amounts in colourful berries, purple sweet potatoes, red cabbage and black rice. C3G exhibits potent antioxidant properties, likely attributed to the presence of two hydroxyl groups on its B ring structure.

Recent research shows that C3G may help

reduce the risk of cardiovascular disease, obesity, neurodegeneration, liver disease, and cancer. Many berries rich in these compounds, including red raspberry, haskapa berries, and mulberry, have long been used in traditional medicine. There is a long history of haskapa berries (also called blue honeysuckle in the literature) being used in traditional medicine in Japan, Russia and China for reducing hypertension and heart attack risk, as well as treating inflammation and liver conditions. Indeed, the Ainu original people of northern Japan, labelled the berry 'the elixir of life' due to its therapeutic benefits.

Daily anthocyanin intake varies significantly worldwide, with Mediterranean countries consuming the highest amounts due to their diets rich in berries, colourful fruits and vegetables, and red wine. European consumption ranges from about 19-65mg per day, with Italy showing the highest intake levels. In contrast, the United States, Australia, and Asian countries consume considerably less at approximately 12.5mg, 24mg, and 37mg per day respectively.

While anthocyanins aren't classified as essential nutrients, China has established a recommended daily intake of 50mg per person. This seems to be a good starting point,



ABOUT THE EXPERT

As the Lead Nutritionist at

Haskapa, **Julie Weston** BSc. (Hons), Dip ION, mBANT, CNHC is responsible for content creation, brand advocacy, and professional engagement. Her role involves writing blogs, recipes, and social media posts, as well as running events and networking initiatives to raise brand awareness among health practitioners. Additionally, Julie facilitates talks and presentations to educate professionals on the unique benefits of Haskapa's products, ensuring they are recognised for their role in supporting health and wellbeing.

with studies on larger amounts showing 100-150mg per day as also beneficial.

Understanding more about specific anthocyanins like C3G and their role in health represents an exciting and rapidly growing area of research. While the science looks promising for their benefits to human health, until we learn more, the best approach is to continue eating the rainbow, making sure purple and blue foods feature regularly!

The science-backed benefits of SHATAVARI

Clinical Nutritional Therapist, Lorna Driver-Davies, examines the benefits of shatavari for perimenopause and menopause health.

Shatavari (*Asparagus racemosus*), a revered herb in Ayurvedic medicine, has long been associated with female reproductive health, hormonal balance, and vitality. Modern scientific research has begun to validate these traditional uses, with growing interest in its phytoestrogenic properties and applications for perimenopause and menopausal support.

This article explores the comprehensive benefits of shatavari.

Phytoestrogenic properties of shatavari

Shatavari contains a rich profile of phytoestrogens, naturally occurring plant compounds that mimic the activity of oestrogen by binding to oestrogen receptors (ERs). Key active constituents include steroidal saponins (notably shatavarins I, IV, VI–X) and flavonoids such as rutin and quercetin. These compounds exhibit binding affinity for ER α and ER β , as well as for progesterone and gonadotropin receptors, according to molecular docking studies conducted by Sharma et al. (2018).

Such receptor interactions suggest that shatavari may modulate hormonal activity in a way that supports endogenous oestrogen functions without the risks associated with synthetic hormone therapy.

Clinical applications in perimenopausal health

One of the most compelling uses of shatavari is in alleviating peri/menopausal symptoms. In a randomized controlled trial (RCT) involving 70

women, supplementation with shatavari led to significant reductions in hot flushes, insomnia, and vaginal dryness. Importantly, it also increased circulating levels of oestradiol and progesterone, highlighting its systemic hormonal support during the menopausal transition (Panda et al., 2015).

These findings are critical, as conventional hormone replacement therapy (HRT) is not suitable for all women due to associated risks. Shatavari offers a promising botanical alternative with a favourable safety profile.

Enhancing muscle strength in postmenopausal women

Emerging research indicates that shatavari's benefits extend beyond reproductive health. In a 2022 RCT by Kulkarni et al., supplementation with shatavari for six weeks led to significant improvements in muscle strength among postmenopausal women. The study also noted increased phosphorylation of regulatory proteins involved in muscle function, an effect mediated by oestrogen receptor signalling.

Loss of muscle mass and function – known as sarcopenia – is a major health concern in ageing populations, especially women after menopause. Shatavari may offer a unique phytoestrogenic strategy to counteract these changes naturally.

Antioxidant and ovarian protective effects

The antioxidant properties of shatavari are another vital aspect of its efficacy. Oxidative stress contributes significantly to ovarian



ageing and hormonal imbalances. Compounds in shatavari scavenge free radicals, thereby protecting ovarian tissue and preserving ~endocrine function. This has positive implications for menstrual regularity, and hormonal resilience throughout a woman's life cycle (Pandey et al., 2020).

Mechanistic insights from molecular research

Modern molecular studies support the traditional uses of shatavari by identifying specific interactions between its compounds and hormonal receptors. For instance, molecular docking has shown that shatavarins bind with high affinity to oestrogen and progesterone receptors, potentially modulating gene expression in a way



that mimics natural hormone signalling without overstimulation. This receptor modulation not only underpins the herb's impact on reproductive tissues but also explains its systemic effects on mood, thermoregulation, and muscular adaptation seen in clinical trials.

Stress modulation

Chronic stress and elevated cortisol are well-known suppressors of libido. Shatavari has demonstrated adaptogenic and antioxidant properties, which may support the hypothalamic-pituitary-adrenal (HPA) axis and reduce stress-induced sexual dysfunction.

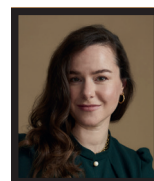
Conclusion

Shatavari stands out as a multifaceted botanical

ally for women's health, from supporting hormonal balance perimenopause and menopause to maintaining muscle strength in post-menopause.

Shatavari has a long-standing reputation in Ayurveda as a rasayana – a rejuvenative tonic – particularly for female reproductive vitality, which includes support for libido. Traditionally, it has been used to enhance sexual vitality to improve desire.

By mimicking the body's natural hormones through phytoestrogenic pathways, shatavari provides a gentle yet effective alternative to conventional therapies. As research continues to evolve, this Ayurvedic herb may increasingly find its place in evidence-based integrative medicine.



ABOUT THE EXPERT

Lorna Driver-Davies has 14 years of expertise in gynaecological and hormone nutritional therapy and functional medicine. She has specialist experience in endometriosis/adenomyosis, perimenopause, menstrual cycle irregularities and botanicals and herbs for female hormone support. She is a regular speaker for surgeons and specialist nurses for the British Society for Gynaecological Endoscopy. She is Head of Practitioners for Wild Nutrition's practitioner education community and services.

THE EVOLUTION OF BIO-KULT

As a key probiotic brand in the sector, Bio-Kult has undergone an evolution, with science at the heart. Technical Advisor, Matthew Hudson, explained more to *Nutrition I-Mag*.

Today, there are many probiotic products, with the overall market having grown hugely in recent years. And since the beginning of the category has been Bio-Kult, a brand that has for three decades led the way in digestive health.

Bio-Kult is also a brand firmly rooted in science, having consistently demonstrated its commitment to investing in research and development. And, as the brand evolves, this remains one of its key principles.

Technical Advisor, Matthew Hudson, commented: "At Bio-Kult, we believe that true wellness starts in the gut. That's why, for over three decades, we've been pioneering multi-strain live bacteria supplements that don't just support the digestive system, they help power the whole body with resilience from the inside out. Founded on the principle that digestive health is central to overall wellbeing, Bio-Kult has become a trusted name in the live bacteria category. Today, the brand is entering an exciting new chapter, expanding its range and introducing innovative formats to meet the needs of modern lifestyles."

And in such a busy market, what is it that sets Bio-Kult apart?

Matthew went on: "Perhaps the brand's most compelling point of difference lies in its scientific backing. Bio-Kult is one of the few live bacteria brands on the market that conducts clinical research on the final formulation, not just the individual strains. This ensures the benefits demonstrated in studies are directly translatable to the product consumers buy – offering real-world efficacy and reassurance."

And of great importance to the brand is its network of practitioners.

"Understanding the needs of practitioners and how we can support these is a key focus of our brand and we continuously strive to strengthen this relationship," Matthew explained. "Our team of Technical Advisors offer a point of contact for practitioners, providing advice on product recommendations and detailed resources communicating our research. Bio-Kult regularly attends practitioner-targeting conferences, including the IHCAN Summit.

This is an opportunity for our teams to meet with Nutritional Therapists, for example, facilitating invaluable conversations which provide inspiration and constructive criticism. Additionally, our products are available on The Natural Dispensary, making them as accessible as possible to practitioners."

Gold standard research

Research has been at the heart of Bio-Kult since the beginning, and remains critical today.

Matthew explained: "Conducting clinical research to support the efficacy of our formulations is a fundamental aspect of the brand and we have partnered with some of the world's leading universities, including Kings College London, Oxford University and the University of Norway to achieve this.

"We can quantify our commitment to research and development with over 40 clinical trials published using our products, and a further six ongoing. In particular, we have a very strong and diverse portfolio of evidence in support of our 14-strain blend, which features in a number of our products. This blend has been studied in a range of populations, including individuals with irritable bowel syndrome, migraine, low mood and major depressive disorder.

"The understanding we have derived from this research not only allows us to recommend when and for whom our products may be beneficial, it also allows us to recommend evidence-based dosages. We are aware that, for consumers, navigating the ever-growing market of food supplements can be intimidating. So, by offering products with formulations evidenced in gold-standard scientific research, we aim to help consumers find the best solution for them."

Much of the research has focused on the combination of strains used in the products to review the overall effectiveness.

"We believe that identifying any single ingredient as the sole solution to gut microbiome support is simply not possible. Instead, based on the current landscape of clinical research on food supplements and gut health, our belief is that formulating products with a combination of beneficial live bacterial strains, prebiotics, postbiotics, vitamins, minerals or botanicals may provide our consumers with the greatest support," Matthew added.

"For example, this approach is clearly demonstrated by our Bio-Kult 3 in 1 Biotic Blend Adult Gummies. This product has a unique multi-action formulation, containing *Bacillus subtilis* DE111, heat-treated *Bifidobacterium animalis subsp. lactis* CECT8145 (BPL1), resistant maltodextrin, and vitamins C and D3. The probiotic strain here has been chosen based on evidence suggesting its benefit to digestive and immune function, the postbiotic for its clinically evidenced use in supporting body composition, the prebiotic ingredient due to its research portfolio suggesting benefits to blood sugar and triglyceride levels, and, of course, the added nutrients have been selected for their contribution to the reduction of tiredness and fatigue and normal immune function, respectively."

Evolving with new formats

Bio-Kult is clearly a brand that doesn't stand still, especially when it comes to NPD. In a significant development, it has recently introduced its first format innovations in years – Bio-Kult 3-in-1 Biotic Blend Gummies and Everyday Fast-Dissolve Powder Sachets.





A FOCUS ON QUALITY

With a growing category can often come varying quality, especially in the mainstream channel. Importantly, Bio-Kult takes a strong view when it comes to the quality of its products, starting with the ingredients right through to manufacture.

Matthew explained: "Producing the highest quality food supplements is of paramount importance at Bio-Kult and achieving this requires excellence in all aspects of manufacture. Our capsule products are produced using the latest techniques in an extremely high-standard (GMP accredited) purpose-built facility } in Somerset.

"The strains that they contain are all fermented individually by highly trained staff before going through a protective process and being freeze-dried, putting the bacteria into a dormant state. When ingested, they are reactivated by the moisture of the gastrointestinal tract. We have carried out testing in a dynamic gastric model simulator ('smartificial gut') to ensure our bacteria reach the gut alive. The Bio-Kult strains were found to survive gastric digestion at significant amounts when taken alongside a meal, informing our recommendation to take our products with food. With that said, in a fasted state, the survival levels were less but still above those supported by clinical evidence.

"Lastly, our capsules are packaged in blister packs that have been carefully selected for their high level of protection against moisture, thus ensuring the stability, integrity and quality of the product is maintained until the end of its shelf life. Due to this, we can be confident in our claim that the dose of live bacteria provided by each capsule remains for a minimum of two years (when stored appropriately)."

So, with exciting NPD having taken place, what's next for the brand?

Matthew advised: "Looking ahead, Bio-Kult remains focused on pushing the boundaries of gut health innovation. The brand is actively developing new, high-performing products backed by robust clinical data and consumer insight. Whether through new delivery formats or advanced strain combinations, every future launch will stay true to Bio-Kult's mission: to empower health from the inside out, through science, quality, and trust."

Matthew advised: "Designed with convenience and compliance in mind, these new products aim to make gut health simple, effective, and enjoyable for all ages. The 3-in-1 Gummies, the first of their kind in the UK, offer a unique blend of probiotics, prebiotics, postbiotics, and multivitamins."

Available in three flavours for adults, teens and kids over the age of four, with two billion CFU per serving, added vitamins and scientifically supported strains like DE111 and BPL1, helping to support daily gut and immune health.

Matthew added: "Meanwhile, the Fast-Dissolve range delivers two to three billion CFU of carefully selected strains in fruity sachets – no water needed. With options designed for both general wellness and immune support, they're perfect for busy lifestyles and travel."

With the newly added products, the Bio-Kult portfolio now includes 17 SKUs, 12 capsule-based products, three gummy formulations, and two fast-dissolve varieties.

"This broad range offers targeted solutions for different health needs, from Bio-Kult Everyday for everyday digestive support to Bio-Kult Infantil for babies to Pro-Cyan for urinary tract health," Matthew commented.

Despite the innovation, the brand's hero product remains Bio-Kult Everyday, a multi-strain capsule containing 14 clinically researched bacterial strains at two billion CFU per dose. For those needing a higher strength option, Bio-Kult Boosted provides the same trusted strains at four times the strength, with added vitamin B12.

LOW FODMAP FARE

Learn how to cook low FODMAP foods, without compromising on taste.



TIP

You can make the faux-lafel patties ahead of time and also roast the vegetables the day before for an even quicker meal



FAUX-LAFEL BURGER WITH ROASTED VEGETABLES AND GRILLED HALOUMI

Serves 6

This recipe uses the faux-lafels (below left). Simply grill or roast vegetables of your choice (I like to use eggplant/aubergine and pumpkin/squash) in the oven or on your barbecue, fry some haloumi cheese and your life will never be the same again! Egg, nut, soy free.

INGREDIENTS:

- 1 aubergine, cut into 1cm (½ in) thick rounds
- 150g (5½ oz) kabocha (Japanese) pumpkin (squash), cut into 1cm (½ in) thick slices
- ⅓-½ cup (80-120ml) extra-virgin olive oil
- 300g (10½ oz) haloumi cheese, cut into 5mm (¼ in) thick slices
- 6 burger buns of your choice
- 1 cup (35g) rocket (arugula)
- 6 faux-lafel patties, cooked (see recipe)
- Cup whole-egg mayonnaise
- Salt and black pepper, to taste

METHOD:

- Preheat the oven to 180°C (350°F) or the barbecue to high heat.
- Place the aubergine and pumpkin on baking trays and drizzle half of the oil on top. Season with salt and pepper and roast for 15-20 minutes, or until cooked through. If you're using the barbecue, toss the vegetables in the oil, salt and pepper in a large bowl and grill for three to four minutes on each side.
- Heat the remaining oil in a frying pan over high heat, then reduce the heat to medium-low and add the haloumi slices. Fry for one to two minutes on each side or until golden brown. The haloumi will soften as it cooks, so be careful when removing it. Serve the haloumi as hot as possible, as it will harden as it cools and lose that delicious soft, gooey texture.
- Spread some kale pesto (if using) on the bottom half of the burger buns, then top with a faux-lafel patty, some roasted pumpkin and eggplant, the freshly grilled haloumi and some rocket. Spread some mayo on the top half of the bun and sandwich together.

FAUX-LAFEL PATTIES

Serves 6

Traditional falafels are made with chickpeas or beans and are too high in FODMAPs, so I created this recipe, which is not only low FODMAP but possibly even better than the original! By using potato instead of legumes, these falafels are soft and fluffy, yet still have the authentic flavour of the ones we know and love. Dairy, egg, gluten, nut, and soy free.

INGREDIENTS:

- 700g (1lb 9oz) potatoes, peeled and cut into 2cm (¾ in) dice
- 50g (1¾ oz) pepitas (pumpkin seeds)
- 3tsp ground cumin
- 1tsp ground turmeric
- 1tsp sweet paprika
- 1tbsp dried chives
- 3tbsp dried parsley
- 1tbsp garlic-infused olive oil
- 1tbsp extra-virgin olive oil
- ½ tsp salt
- ½ tsp black pepper

TIP

You can shape these into balls if you prefer a more authentic shape. Shallow-fry the patties instead of cooking in the oven for a crispy, golden finish.

METHOD:

- Put the potato in a stockpot and add enough cold salted water to cover the potato by 2cm (¾ in). Bring to the boil over high heat, then reduce the heat to medium and boil for 15-20 minutes, or until the potato can be easily pierced with a fork. Drain and allow to cool slightly before mashing.
- Blitz the pepitas in a blender until finely crushed, then add to the mashed potato along with all the other ingredients and mix well to combine.
- Preheat the oven to 200°C (400°F). While the oven is heating, divide the mixture into six balls and shape into patties (see tip). Place on a baking tray lined with baking paper and bake for five-10 minutes on each side until golden brown.
- The falafels can be frozen for up to four months. Just add some baking paper between each one to prevent them from freezing in one lump. Leave to thaw in the fridge overnight or microwave for two to three minutes.

CREAMY PUMPKIN AND PINE NUT RISOTTO

Serves 4

Risotto is such a comforting dish – warm, creamy and oh so filling! This recipe has been my go-to for risotto for years, as it's simple to cook and full of flavour. I also love that the pumpkin (squash) gives it a nice golden hue. The trick to any good risotto is to cook it until the rice is al dente, keep it a little wet and serve immediately. This is because the rice will continue to absorb the liquid as it cools, reaching the perfect consistency on the plate. Egg, gluten, and soy free.

INGREDIENTS:

- 5 cups (1.25l) water or low-FODMAP chicken stock (recipe opposite)
- 2 low-FODMAP chicken stock cubes (omit if using chicken stock)
- 1½ tbsp garlic-infused olive oil
- 320g (11¼ oz) kabocha (Japanese) pumpkin (squash), skin removed, cut into 5cm (2in) dice
- 1 cup (220g) arborio rice
- 1tsp salt
- 1tsp black pepper
- 1tsp dried thyme
- ½ tsp dried rosemary
- 1tbsp dried chives
- ¼ tsp ground turmeric
- 100g (3½ oz) zucchini (courgette), cut into 1-2cm (¼-¾ in) dice
- 25g (1oz) grated parmesan
- 20g (¾ oz) toasted pine nuts, to garnish

METHOD:

- Bring the water and stock cubes (or chicken stock) to the boil in a large saucepan. Once boiling, reduce the heat to a low simmer.
- In another saucepan, heat the garlic oil over medium-high heat and add half the pumpkin, the rice, salt, pepper, herbs and spices and toast for two to three minutes. Carefully add one to two ladles of warm stock to the pan with the rice and stir until most of the liquid has been absorbed.
- Add the zucchini, then continue to add stock, one ladle at a time, until the rice is half cooked, about 10 minutes. Add the remaining pumpkin. Continue adding more stock, cooking in between each addition, until the rice is al dente. The constant stirring and slow addition of the hot stock will release the starches from the rice, making the dish nice and creamy.
- Once the rice is al dente, remove the pan from the heat and stir in the parmesan. Garnish with pine nuts, serve and enjoy.



LOW-FODMAP CHICKEN STOCK

Makes 4 cups (1 litre)

Dairy, egg, gluten, lactose, nut, soy free.

INGREDIENTS:

- 1 kg (2lb 4oz) chicken carcass
- 200g (7oz) carrot, quartered
- 50g (1¾ oz) fennel
- 50g (1¾ oz) fresh flat-leaf (Italian) parsley
- 3 bay leaves
- 1tsp whole black peppercorns
- 40g (1½ oz) spring onion (scallion) tops, green parts only
- 2tsp dried or fresh rosemary
- 1tsp dried or fresh thyme
- 1tsp salt
- 2tsp apple-cider vinegar
- 2tsp garlic-infused olive oil (optional)

METHOD:

■ Add all the ingredients to a stockpot and cover with cold water, about 2cm (¾ in) above the ingredients. Bring to the boil over medium-high heat, discarding any foam that forms on the surface, then reduce the heat to low and simmer gently, uncovered, for three hours. If it bubbles too rapidly, it will reduce the liquid too much and the stock will be murky instead of nice and clear, so keep an eye on it and top up the water if needed.

■ Drain through a sieve or colander into a large bowl or pot to catch all the beautiful stock. Allow the stock to cool slightly before portioning (if not using right away). I find it's easiest to store this in one cup (250ml) quantities. Store in the fridge for up to five days or in portions in the freezer for up to three months. If using in soups or hot meals, simply add from frozen or defrost in the microwave for one to two minutes (it defrosts rather quickly).

HEALTHY GRANOLA BARS

Makes 8-10

Granola bars are so easy to make and are much healthier than store-bought versions. Use this as your base recipe and change the flavour by adding different nuts or seeds and even some dried fruit. Dairy free, gluten free, lactose free, nut free, soy free.

INGREDIENTS:

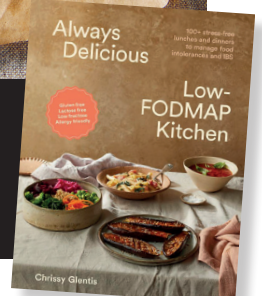
- 2 cups (195g) quinoa flakes
- 1 cup (100g) almond meal
- ½ cup (86g) dark chocolate chips
- ½ cup (75g) nuts or seeds of your choice (I like to use pepitas/pumpkin seeds)
- ½ cup (115g) coconut oil, melted
- ½ cup (125ml) pure maple syrup
- ½ tsp ground cinnamon
- 1tsp vanilla extract

METHOD:

- Preheat the oven to 180°C (350°F). Grease and line a 23 × 23cm (9 × 9in) brownie tin with baking paper.
- Add all the ingredients to a bowl and mix until combined. Spread out in the tin and press down evenly. Bake for 25-30 minutes, or until golden brown.
- Leave to cool, then cut into bars or squares. These will keep in an airtight container at room temperature for up to five days.



Always Delicious Low-FODMAP Kitchen by Chrissy Glentis is published by Murdoch Books, £20, www.murdochbooks.co.uk. Image credit: Armelle Habib.



I-MAG GIVEAWAYS

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

Terranova NextGen NADPro

NAD+ Activator Complex

NextGen NADPro NAD+ Activator Complex features BioSNEDS NADPro Quercetin/Niacinamide Cocrystal to support healthy NAD levels, a cofactor for crucial metabolic functions in the body. NextGen NADPro NAD+ Activator Complex is 44.4 times more bioavailable compared to the standard form (results based on independent Pharmacokinetic (PK) and PAMPA studies). This advanced formulation not only has a MAGNIFOOD COMPLEX providing synergistic phytonutrients from superfoods and fermented botanicals to further support the activity of NAD+ but there are additional ingredients such as BioSNEDS ResveraSol, bitter orange and lycopene that add to its unique composition and synergy.

I:Win: We have 15 to give away.



BioMedica Collagen Matrix

BioMedica's Collagen Matrix provides a vegetarian-friendly, evidence-based alternative to traditional collagen powders delivered in a convenient capsule format to support compliance. Unlike standard collagen products that often require 10-15g of powder daily, Collagen Matrix delivers clinically effective results with just one capsule per day, thanks to Ovomet, a highly bioavailable, sustainably sourced eggshell membrane extract rich in collagen, elastin, and glycosaminoglycans (GAGs). Ovomet has been clinically studied for its ability to reduce joint pain and stiffness, particularly in individuals over 65, while also supporting skin health and connective tissue repair. The formula includes vitamin C to aid collagen synthesis and manganese, a vital cofactor in connective tissue formation and bone health. Free from bovine or marine derivatives, Collagen Matrix offers a unique, comprehensive approach for natural health practitioners seeking a clean and effective collagen option.

I:Win: We have three to give away.



Divine Fusion Collagen Beauty Blend

Support radiant skin and inner wellness with Divine Fusion's Collagen Beauty Blend – a premium formula powered by grass-fed collagen (Types I and III) and a targeted blend of nature's finest beauty-enhancing ingredients. Tremella mushroom, known as the beauty mushroom, helps boost skin hydration and elasticity, while aloe vera, bamboo silica, baobab, and acerola cherry provide essential nutrients to support skin, hair, nails, and gut health. With a delicious hint of strawberry and lemon, each sip is a treat. No artificial sweeteners or additives – just pure, functional nutrition in every scoop.

I:Win: We have three to give away.





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