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NUTRITION I-MAG
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CREDITS

SKIN SALVATION

An expert guide to alleviating skin conditions, inside and out

DIGESTIVE BREAKDOWN

A closer look at the inner workings of the gut

ACT ON INFLAMMATION

The extensive impact inflammation has on long-term health



• Nutrition is a world of Pathways •



• To be nourished the pathways should be open •



• Opening pathways, not beating down the door •



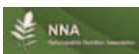
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Welcome



If there is one health issue that garners the greatest public attention, not to mention debate, it is that of our gut health. Perhaps because digestive issues affects so many people these days, or maybe because the public is more aware of issues around food intolerance (gluten has become the enemy among many health enthusiasts!), people are seeking information when it comes to how they can maintain a healthy gut.

And as Nutritional Therapists, you are an obvious port of call for those – and there are many – who feel they have exhausted their options with their GP and are in need to help. And so, in this issue, we bring you the lowdown on what you need to know regarding gut health, with our nutrition experts offering their insights into everything ranging from common gut related conditions and the symptoms, the knock-on effect a poorly functioning gut can have on other aspects of health, and what the latest research is telling us regarding nutritional therapy and the gut.

Also in this issue, we highlight the problems around inflammation in

the body, as well as discuss the contributory factors that raise our risk of developing a skin condition.

Don't forget that by reading and learning through this magazine, you can also gain yourself some valuable CPD points, while also benefitting from the knowledge of a range of leading experts.

Finally, if you are looking to further your educational knowledge and secure all-important CPD points, why not get along to one of the ICHAN Conferences, which are held throughout the year. Find out more about the opportunities on page 16 of this issue, or visit www.ihcanconferences.co.uk for all the dates and to book your place.

Rachel

RACHEL SYMONDS, EDITOR

PS Don't forget you can read *Nutrition I-Mag* online. Simply log onto www.nutritionimag.com, where you will find the current issue, or head over to our Twitter page (@nutritionimag) to stay up to date on the health news.

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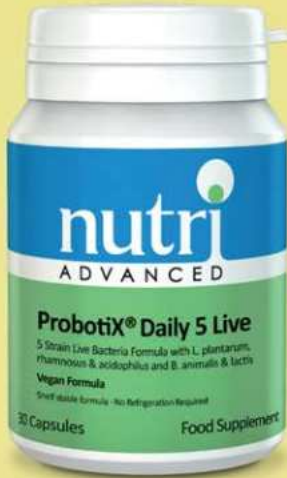
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OUR CONTRIBUTORS

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



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Rachel Bartholomew BA(Hons) Dip ION MBANT NTCC CNHC has practiced as a Nutritional Therapist since completing her study with the Institute of Optimum Nutrition in 2004. With a busy clinical practice in Lancashire, Rachel has a particular interest in children's health and nutrition, with a keen focus on improving nutrition education at an early age. Rachel combines her clinical work with a freelance consultant role for Nutri Advanced, where she regularly produces a wide range of technical articles and newsletter items.



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Rose Holmes, Dip.ION, BSc (Hons), PGCE, mBANT, CNHC is a Registered Nutritional Therapist with a special interest in chronic illness, circadian rhythm disruption and healthy ageing. She is the Education and Training Manager at Rio Trading Company and provides training to other practitioners and health professionals on natural therapies.



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Isabelle Nunn, MPHARM (Hons) Dip NT is a qualified Nutritional Therapist and Pharmacist, providing expert advice at leading natural products distributor Kinetic Enterprises as Technical and Commercial Nutritionist. Passionate about nutrition, health and disease prevention, Isabelle believes in using a holistic approach to improve your overall wellbeing.



Jenny Logan

Jenny Logan DNMed is the Technical Training Manager for Natures Aid and has worked in the natural products industry for over 20 years. She is a Nutritional Therapist and ran her own very successful health food store for 13 years, before setting up in private practice.



Marta Anhelush

Marta Anhelush DipCNM, mBANT, CNHC is a Nutritional Therapist working for BioCare in the Clinical Nutrition Department, while practising. Through personal experiences, Marta has embarked on a path of nutrition and has never looked back. Since graduating from the College of Naturopathic Medicine, Marta has continued to research and has developed particular interest in Autoimmunity, Endocrinology and Nutrigenomics.



Dr Marilyn Glenville

Dr Marilyn Glenville PhD is the UK's leading nutritionist specialising in women's health. She is the former President of the Food and Health Forum at the Royal Society of Medicine, a registered nutritionist, psychologist, author and popular broadcaster. For over 30 years, Dr Glenville, has studied and practiced nutritional medicine specialising in the natural approach to female hormone problems.

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News bites

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



Kriss Glenville (left) with Patrick Holford

Motion lodged following closure of in-patient facilities at homeopathic hospital

Concern has been expressed at the closure of the last remaining in-patient facilities in the UK that deliver access to NHS holistic and integrative care.

Day care and outpatient facilities shall continue at the NHS Centre for Integrative Care (CIC), formerly Glasgow Homoeopathic Hospital, but this has limitations for the seriously ill patients who attend.

The hospital provides care for patients living throughout Scotland (and sometimes further afield), except NHS Lanarkshire, which recently ceased all referrals.

However, at the end of 2016, NHS Greater Glasgow and Clyde Health Board voted to close all the remaining in-patient beds. The majority of staff who worked within the in-patient unit will now have to be redeployed as the budget for the new service is so small that the majority will not be able to continue working within the

hospital.

Scottish Labour Party Health spokesperson, Anas Sarwar, has written a Scottish Parliament motion in support of the hospital and staff, which read: "That the Parliament notes with regret that, on 31 March 2017, the inpatient facilities at the NHS Centre for Integrative Care will close; considers that this was an award-winning model of care that will now be lost; acknowledges the efforts of the highly experienced and specialist staff who work in the ward and who it understands will now be redeployed; expresses its disappointment that the Scottish Government did not recognise the majority vote in the Parliament to designate this service change as major and therefore have it called in for a decision, and considers that the Scottish Government has not accepted the will of the Parliament in this regard."

Patrick Holford joins forces with NHP

The Natural Health Practice is taking over the sales and operations of the Patrick Holford brand.

The new partnership was announced, with Kriss Glenville, CEO of NHP, commenting: "The two brands have a reliable track record and it is time to take the natural medicine business to a new level. NHP, together with our brand ambassador, Dr Marilyn Glenville PhD, and Patrick Holford all share a science-based approach to nutrition as effective and ethical medicine so it's a great fit for NHP to take over the sales and operations of Patrick's business and present a higher profile for both organisations.

"The immediate focus is to ensure a seamless transition for all Holford B2B accounts regarding stock ordering and fulfilment, and we already have a team working directly with all key accounts to ensure this happens. In terms of growth and opportunity for the Holford brand, as well as having a strong sales strategy for the UK market, NHP has recently conducted a

massive sales drive for international business and is now represented through high profile distribution partners in Europe, the UAE and the United States."

Dr Glenville added: "Patrick and I have both been very focused on supplement quality and efficacy for many years and the idea of working alongside each other can only work to strengthen our passion for education and empowering the consumer of how optimise their health naturally."

And Patrick continued: "Marilyn's focus and expertise on women's health issues is second to none. I believe a lot of the groundwork about what actually works has been done. Now we have the opportunity to get the education and products available nationally and internationally and I am delighted to combine resources with such a synergistic team to make this possible."



Bio-Kult kicks off summer with a new health campaign

Practitioners are being encouraged to take advantage of a forthcoming campaign from Bio-Kult.

The probiotics specialist has devised a new Survive Summer campaign, with a host of tips being found in the new material designed to help support practitioners and their clients. New

material includes the new Survive Summer leaflets and posters, while the team of Nutritional Advisors are on hand to offer their support.

You can contact your local Nutritional Advisor or email info@bio-kult.com. In addition, the in-house technical team are always on hand to chat through products or latest research.





British Nutrition Foundation launches new platform to educate teachers

A new development platform has been created for primary school teachers in a bid to help develop their nutritional education.

The British Nutrition Foundation (BNF) launched the new development in response to results of research which shows that many teachers are getting little training in the area of nutrition, yet poor nutrition and an unhealthy lifestyle is detrimental to health and academic performance.

Launched at a London conference for health professionals and educators to mark its 50th anniversary, the BNF hopes that the online training will provide much needed additional education for teachers.

The BNF's new professional development course, 'Teaching food in primary: the why, what and how', delivers seven different training modules, including food origins, the Eatwell Guide and healthy eating, nutrition understanding, food safety, and cooking in the classroom. It provides downloadable guides for reflective practice, and culminates

in an assessment and BNF certification for those teachers who successfully complete the full course.

Roy Ballam, Managing Director and Head of Education at the BNF, said: "It is critical that teachers lay the foundations for children to make good dietary and lifestyle choices now and as adults. But most primary teachers have received virtually no formal training in food, nutrition and physical activity. It is because of this that the BNF believes that there is an urgent need to support these teachers during their training and when they are practicing.

"Our professional development programme is inline with the curriculum demands, as well as Government food teaching guidelines in schools, and will equip teachers to be able to implement engaging food lessons and healthy school initiatives, for the benefit of all their students."



Decade in business marked with expansion for natural health brand

BetterYou has marked its 10th anniversary with news of further expansion.

The Barnsley-based health pioneer has expanded its premises, along with its award-winning product range.

The company, which specialises in the field of transdermal magnesium and oral vitamin spray supplementation, will almost double its floor space to over 12,000 sq ft to allow the company to expand not only its distribution capabilities, but also its development of export opportunities.

Andrew Thomas, founder and Managing Director of BetterYou, said "Over the last 10 years, BetterYou has grown from a one-man start-up in 2007 to a multi-million-pound international brand. Each year, we've seen the BetterYou brand go from strength to strength. The company is going through a significant period of strategic growth and our focus continues to be the production of high quality products (including the world's first Turmeric Oral Spray and MagnesiumGel), supported by continued research and greater retail availability.

"The last decade has seen us thrive as a business both nationally and internationally, however, we are a business based in the heart of Yorkshire and are very proud to have recently been shortlisted in the Life Sciences category at the prestigious Insider Made in Yorkshire Awards 2017."

Brits feel misled over beauty labelling, poll finds

An independent study has revealed that 76 per cent of consumers feel misled by some labelling on beauty products.

The new research, released as part of the Soil Association's Campaign for Clarity, shows that 72 per cent of people said they would lose trust in a beauty brand that made misleading claims about being organic.

The Soil Association's Come Clean About Beauty league table reveals a cross section of brands and beauty products on the market which make potentially misleading organic claims on the label, which includes using 'organic' on some labels – yet these products are not certified as organic and include ingredients banned under organic standards.

A total of 69 per cent of people surveyed said that they felt misleading labelling should be against the law.

"This is the tip of the iceberg", commented Soil Association Policy Director, Peter Melchett. "The labels on products we encountered were littered with confusing terms. Our consumer research shows that it is very difficult for consumers to know they are making the right choice when

doing their shopping."

The research found that 74 per cent of people said they would feel they were choosing a product which was free from nasties if it said organic on the label. Yet the reality is quite different; a leading independent toxicologist reviewed the ingredients found in products which say organic on the label and identified the 'Terrible Ten', ingredients which have been shown in wider use to cause problems, such as allergies, hormone disruption, or harm to the development of unborn babies.

Emeritus Professor Vyvyan Howard of the Centre for Molecular Bioscience at Ulster University, who assessed the ingredients used in the potentially misleadingly labelled products and came up with the 'Terrible Ten', said: "I was shocked to find ingredients which could contain human carcinogens in products with labels which could misleadingly suggest that they might be organic. Genuine organic products are independently certified and I would encourage consumers to choose those to be sure they are keeping away from ingredients included in the 'Terrible Ten'."

In Research

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

Research reveals rise in levels of iodine in organic milk

A study has found that levels of iodine in organic milk continue to increase.

The results from the latest research of iodine levels in organic milk by the Organic Milk Suppliers Cooperative (OMSCo), conducted by an independent laboratory, have shown that levels are now ahead of conventional milk for the first time since testing began.

This milestone is being attributed to a three-year project initiated by the Organic Milk Suppliers Cooperative (OMSCo) to increase the levels of iodine in organic milk, following industry concern that levels were behind conventional milk.

“Organic dairy standards prescribe that herds must graze outside for as long as possible, which is typically more than 200 days per year, and that at least 60 per cent of their diet must come from forage. It’s these factors which have historically been at the root cause of lower iodine levels in organic finished milk,” commented Richard Hampton, OMSCo Managing Director.

“As a result, in 2014, we initiated a project to ensure comparable levels of iodine in organic milk working with feed mills and our members.

Since implementing the programme, we’ve seen a consistent upward trend in iodine levels and the latest independent results from 58 tests of whole, semi-skimmed and skimmed milk show, for the first time, that the average level of iodine in organic milk is 11 per cent ahead of the conventional average in finished milks.”

Richard added that the study highlighted that milk produced from OMSCo only farms is 42 per cent ahead of the conventional average. Based on these results, an average 200ml serving of organic milk provides 74 per cent of an adult’s daily iodine requirement and the same sized serving of organic milk from OMSCo only farms would provide 95 per cent.



Cognitive function boosted by brain stimulation in early years, study finds

Engaging brain in stimulating activity, along with a healthy lifestyle, has been shown to act as a protector against brain decline in older age.

A large-scale investigation, published in the journal *PLOS Medicine* and led by the University of Exeter, used data from more than 2,000 mentally fit people over the age of 65, examining the theory that experiences in early or mid life which challenge the brain make people more resilient to changes resulting from age or illness – they have higher ‘cognitive reserve’.

The analysis, funded by the Economic and Social Research Council (ESRC), found that people with higher levels of reserve are more likely to stay mentally fit for longer, making the brain more resilient to illnesses such as dementia.

The research team included collaborators from the universities of Bangor, Newcastle and Cambridge.

Linda Clare, Professor of Clinical Psychology of Ageing and Dementia at the University of Exeter, said: “Losing mental ability is not inevitable in later life. We know that we can all take action to increase our chances of maintaining our own mental health, through healthy living and engaging in stimulating activities. It’s important that we understand how and why this occurs, so we can give people meaningful and effective measures to take control of living

full and active lives into older age.

“People who engage in stimulating activity which stretches the brain, challenging it to use different strategies that exercise a variety of networks, have higher ‘cognitive reserve’. This builds a buffer in the brain, making it more resilient. It means signs of decline only become evident at a higher threshold of illness or decay than when this buffer is absent.”

The research team analysed data from 2,315 mentally fit participants aged over 65 who took part in the first wave of interviews for the Cognitive Function and Ageing Study Wales (CFAS-Wales). They analysed whether a healthy lifestyle was associated with better performance on a mental ability test. They found that a healthy diet, more physical activity, more social and mentally stimulating activity and moderate alcohol consumption all seemed to boost cognitive performance.

Professor Bob Woods of Bangor University, who leads the CFAS Wales study, said: “We found that people with a healthier lifestyle had better scores on tests of mental ability, and this was partly accounted for by their level of cognitive reserve. Our results highlight the importance of policies and measures that encourage older people to make changes in their diet, exercise more, and engage in more socially oriented and mentally stimulating activities.”





Prebiotic properties of mushroom nutrition examined in new study

Researchers have found that mushroom nutrition may help support healthy gut bacteria.

A group of Portuguese universities focused on the potential for mushroom nutrition to act as a prebiotic and indirectly reduce the ability of gut bacteria to adhere to the wall of the gastrointestinal tract.

The mushroom studied was *Coriolus versicolor* and the in vitro study, published in the *Clinical Journal of Mycology*, saw researchers from the Catholic Portuguese University in Oporto and the Faculty of Veterinary Medicine in Lisbon compare the mushroom's prebiotic effect in four probiotic strains; *Lactobacillus acidophilus* L10, *Lactobacillus casei* L26, *Bifidobacterium longum* BG and *Bifidobacterium animalis* B80.

The researchers demonstrated a potential strain-dependent prebiotic effect, with higher activity on the *Bifidobacterium animalis* B80 when compared to *Lactobacillus casei* L26 and *Bifidobacterium longum* BG6. There was no impact on *Lactobacillus acidophilus* L10.

Following-up on this hypothesis, the researchers tested the impact of *Coriolus versicolor* biomass upon *Salmonella enterica* (ATCC 13076), *Staphylococcus aureus* (ATCC 6538) and *Escherichia coli* (ATCC CRM 8739) adhesion to mucin was evaluated in vitro using mucin (Type II Sigma-Aldrich) as a model of the intestinal mucus.

The results showed a potential inhibitory effect of the *Coriolus* substrate, especially in the case of *Salmonella enterica*. The researchers found that, while encouraging, additional studies are needed in mixed cultures and faecal samples to assess the bioactivity in an environment involving complex intestinal microbiota.

Grant announced to fund further vitamin K2 research

Research will take place into the effect of vitamin K2 on the metabolism of calcium following the announcement of a new grant.

The Norwegian Research Council has awarded a grant to NattoPharma to fund the four-year project, which will document the effects of calcium metabolism in the body based on the presence or absence of vitamin K2, MK7. The project will utilise NattoPharma's MenaQ7 Vitamin K2 as MK-7 and the research part will be conducted at the Maastricht University in the Netherlands in the Department of Biochemistry, under the guidance of Dr Leon Schurgers, Senior Scientist and Associate Professor of Biochemistry at Maastricht and CARIM, the Cardiovascular Research Institute of Maastricht.

In the research, NattoPharma, together with the Maastricht University, will study the utilisation of calcium in preclinical models for postmenopausal bone loss and chronic kidney failure to determine how supplemental calcium is metabolised in the presence or absence of supplemental vitamin K2, MK7.

"This study will help to provide further evidence that calcium without adequate vitamin K2 consumption might end up in the soft tissues, where it is not wanted, rather than in the bone matrix, where it is needed," explained Dr Schurgers.

"In a recent study by Bolland et al., it was shown that calcium supplementation of postmenopausal women was associated with a beneficial effect on bone, but also with increased myocardial infarction, suggesting detrimental effects on the vascular system, possibly by increased vascular calcification. As calcium supplementation is needed for bone, the precipitation in the vessel wall needs to be inhibited."



Plant-based protein may cut type 2 diabetes risk

The results of a new study have suggested that plant-based protein have a greater impact on reducing the risk of type 2 diabetes (T2D).

The research, published in the *British Journal of Nutrition*, investigated the associations of dietary proteins with the risk of incident T2D in Finnish men from the prospective Kuopio Ischaemic Heart Disease Risk Factor Study.

The study included 2,332 men aged 42-60 at the baseline examinations in 1984-1989. Protein intakes were calculated from 4-d dietary records and incident T2D was determined by self-administered questionnaires, fasting blood glucose measurements, 2-h oral glucose tolerance tests, and with national registers.

During the mean follow-up of 19.3 years, 432 T2D cases were identified. It was found that total, animal, meat or dairy product

protein intakes were not associated with risk of T2D when the potential confounders were accounted for. However, plant and egg protein intakes were associated with a decreased risk of T2D. Adjustments for BMI, plasma glucose and serum insulin slightly attenuated associations. Replacing one per cent energy from carbohydrates with energy from protein was associated with a five per cent increased risk of T2D, but adjustment for fibre intake attenuated the association. Replacing one per cent of energy from animal protein with energy from plant protein was associated with 18 per cent decreased risk of T2D. This association remained after adjusting for BMI.

"In conclusion, favouring plant and egg proteins appeared to be beneficial in preventing T2D," the researchers reported.

New to market

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



TURMERIC NPD FOR BETTERYOU

The latest addition to the range at BetterYou has seen the launch of the world's first Turmeric Oral Spray.

Harnessing the science of molecular encapsulation, BetterYou's Turmeric Oral Spray guarantees superior absorption than tablets through its unique delivery mechanism, which bypasses the digestive system (a well-documented absorption issue for curcumin).

The most bioavailable on the market, this pioneering formulation ensures a greater uptake of the three active curcuminoids. Using natural ingredients, this orange flavoured formulation is suitable for vegetarians.

In addition, the brand has also launched MagnesiumGel, which boasts the most concentrated gel/magnesium content on the market and is formulated for ease of use and targeted application for the customer.



BERRY GOOD

Pukka Herbs has unveiled its latest innovation in the shape of Wonder Berry Green Tea.

Made using 12 beauty and health boosting fruits and herbs, the tea contains 100 per cent natural and organic ingredients, such as elderberries, rosehips and acerola, with some blackcurrants. Ingredients include green tea, peppermint leaf, ginger and licorice root, echinacea leaf and root and rosehip.

In addition, Pukka has also introduced a new

variety box, Green Collection, comprised of five green tea blends.

Clean Matcha Green, Ginseng Matcha Green, Mint Matcha Green and Supreme Matcha Green are joined by brand new blend, Wonder Berry Green.

All of the teas are free from synthetic flavourings, only sustainably sourced, organically grown and fairly traded herbs and fruits.

OPTIBAC INNOVATES

New to the line-up at OptiBac Probiotics is the 'For every day MAX' product.

The advanced super strength supplement contains 50 billion live microorganisms per capsule in a combination of three strains, *L. acidophilus* NCFM, *B. lactis* HN019 and *B. lactis* BI-04.

The three strains have been shown to improve digestion, lower inflammation and moderate reaction to allergies.



ENZYME DEVELOPMENT



The experts at Enzymedica have developed the portfolio with the creation of a new product to ease wind and bloating.

BeanAssist contains the enzyme, alpha galactosidase, which breaks down complex carbohydrates.

This means that foods

such as beans, cabbage and broccoli become naturally easier to digest when the digestive system is supported with an alpha galactosidase enzyme supplement.

It is alpha galactosidase that has been shown in research studies to be effective for reducing occasional wind-related symptoms.

The vegetarian enzyme formula is kosher and contains no fillers or binders.

BANT News



The latest developments from the leading professional body for Registered Nutritional Therapists, BANT.

BANT APPOINTS NEW FELLOW MEMBERS AND ONE HONORARY MEMBER

BANT is delighted to announce the appointment of three new Fellow Members.

In 2015, BANT opened up annual applications for Fellow Members in order to recognise those members who have made a significant contribution to the Nutritional Therapy profession or have advanced the practice of Nutritional Therapy. Fellow Members of BANT will normally have been full members for at least five years. Fellow is the highest grade of membership of BANT.

When applying for Fellowship, members need to demonstrate the following:

- Either that they have gone far and beyond the call of duty in their work for BANT as a volunteer and, in doing so, have made a significant contribution to BANT, supporting BANT in its vision and enabling BANT to achieve its Strategic Objectives in moving the profession forward.
- Or, they have shown an unselfish dedication in advancing the practice of Nutritional Therapy and made a significant, demonstrable contribution to the industry. Fellows are seen as exemplars of the profession and wholly support the aims and objectives of BANT.

BANT is absolutely delighted to have awarded at this year's AGM further Fellowships to three very deserving applicants (*see right*).

FELLOW MEMBERS

Carol Granger

Carol has been a BANT member since 2006. She joined the Nutritional Therapy Council (NTC) in 2006 and has been the Chair of NTC, now the Nutritional Therapy Education Commission (NTEC), since 2008. In 2006, Carol was involved in the NTC Certification of Competency in Nutritional Therapy Practice by portfolio route, enabling NTs to be eligible to register with the NTC. From 2007 to 2008, Carol was the NTC representative on the Federal Working Group on regulation of Complementary and Alternative Medicine, which established the Complementary and Natural Healthcare Council (CNHC).

Carol ensured that the high standards of training for Nutritional Therapists and the process for registration was more rigorous than other professions. In her role as Chair of NTEC, Carol participates and leads assessment visiting panels for the accreditation of courses to the National Occupation Standards in Nutritional Therapy. From 2010 to 2014, Carol was a member of the CNHC Profession Specific Board for Nutritional Therapy.

In addition, Carol has demonstrated extensive services to academia, including a number of publications and research activities.

Karen Watkins

Karen has been a member of BANT since 1999 and has made significant contributions to raising the educational and academic standards within the profession. Karen sat on the Nutritional Therapy Council (NTC) as a member from 2002-2006 and from 2007-2008, developed the accreditation process that she took through



consultation from conception to its current position.

She designed the process, wrote the handbook and trained the assessors. Since 2008, Karen has worked with NTC (now Nutritional Training Education Commission) as Accreditation Chair. Karen continues to oversee the accreditation process, which continues to raise educational standards within our profession. Karen was also involved in working with the NTC on the Grandparenting scheme, allowing NTs to be eligible to register with NTC. She was also involved with the transferring of the register to the CNHC.

Anne Pemberton

Through Anne's work as a Nutritional Therapy Course Leader, she has used her experience to share best practice with NTEC Training Providers to enhance the profession. Anne is passionate about ensuring that NTs have the appropriated level of training and understanding in genetics and as such, has invested time and funds to understand this topic herself in order for practitioners to work with Nutrigenomics safely and effectively.

Anne has been a member of the Nutritional Therapy Education Commission (NTEC) since 2014 and a member of the Accreditation Team since 2015. Within NTEC, Anne is responsible for designing Nutrigenetic competencies.



BANT ANNOUNCES APPOINTMENT OF HONORARY FELLOW TO VAL MOWLAM

In addition to three new BANT Fellow Members, BANT is delighted to announce the award of Honorary Fellow to one of its most dedicated, loyal and hard-working members.

Val Mowlam joined BANT as a full member in 2003 and since that time, has demonstrated significant 'above and beyond the call of duty' in her work for BANT.

Val was a member of the PPC from 2008 to 2012 and Chair of the PPC from 2008 to 2011. During the same period, Val was also appointed assessor for NTC Grandparenting applications and it was largely due to her efforts that allowed 600 members to register with the NTC and onward to the CNHC. From 2009 to 2014, Val was a committee member of the NTC and then NTEC when it was formed. Val was also a member of the accreditation assessment boards for NTC/NTEC during the same period. From 2010-2014, Val was a Profession Specific Board Member for Nutritional Therapy at the CNHC. Val's contribution and commitment to BANT are unparalleled.

Val was appointed a Fellow of BANT in 2015. She announced her retirement from the profession in January this year and BANT is delighted to have been able to award Val with an Honorary Fellowship.

TWENTY YEARS OF NUTRITIONAL THERAPY

It has been an eventful 20 years since BANT initially formed as the British Association of Nutritional Therapists back in 1997, followed by the formation of the Nutritional Therapy Council (NTC) to set common standards of education and training for nutritional therapy.

Currently, BANT is seeking statutory regulation under the Health and Care Professions Council (HCPC, previously known as the Health Professions Council, or HPC). This is a topic that has plenty of history behind it, going as far back as 2001 when the NTC revised its constitution in line with Government guidance on setting standards and progressing towards voluntary self-regulation. All those years back, BANT had been in close touch with the HPC, which provided guidance for the creation of the CNHC, the Complementary and Natural Healthcare Council (CNHC), our current regulator.

Nutritional Therapy has matured into a valued, evidence-based practice, with growing numbers of Nutritional Therapists practicing functionally. This Functional Medicine approach is now also gaining momentum across the UK medical community, with over 100 GPs and several Pharmacists and other health professionals attending the AFMCP (Applying Functional Medicine in Practice) training in London in early April.

Functional Medicine (FM) addresses the underlying causes of disease, using a systems-oriented approach while addressing the whole person, not just an isolated set of symptoms. It engages the patient in their own care through a therapeutic relationship with the practitioner, promoting health outcomes based on a patient's history, and interactions among genetic, environmental and lifestyle factors. This personalised approach is the hallmark of nutritional therapy, which further focuses on lifestyle and nutrition sciences to promote optimum health and reduction in chronic and lifestyle diseases, such as Type 2 Diabetes.

Growing collaboration between Nutritional Therapists and GPs and Pharmacists is helping people in preventative stages of disease to take charge of their health through diet and lifestyle modifications that can further improve not just their longevity but also the wellbeing of the whole family. Equally, the talks at schools and other social gatherings are engaging the community to become more proactive and better informed about healthy food choices and the need for movement, while promoting healthier lifestyle. After all, who would want to become a statistic and suffer the last 15 years of their life with chronic disease?

Lifestyle medicine at its best!



Places filling up for the 2017 IHCAN Conferences

As the 2017 conference series kicked off with a bang in March, now is the time to secure your place for the rest of the year.



On Saturday, March 18, the Cavendish Conference Centre, in London, opened its doors to practitioners from all over the country for the first IHCAN Conference of the year, in collaboration with BANT.

Previously known as the CAM Conferences, the change of name to Integrative Healthcare and Applied Nutrition is new for this year, providing a more up-to-date reflection of the industry.

The first conference of the year focused on Nutrients and Gene Expression, welcoming an expert on the interactions between nutrients and genes, Professor Giovanni Scapagnini, MD, PhD to address delegates for the entire afternoon.

The next conference took place on April 22, titled 'Inflammation and Antioxidants', and saw living legend, Professor Stig Bengmark, take to the stage as keynote speaker. After a long successful career as a surgeon, professor and clinic director, Professor Bengmark has become an acknowledged world authority on chronic inflammation and chronic diseases, which he says the facts show are a result of dysbiosis. Professor Bengmark presented 'Choosing Health – Honour your intestinal microflora, so that you may live long'.

Professor Bengmark was joined by Dr Thomas Levy, who, after practising adult cardiology for 15 years, began to research the enormous toxicity associated with much dental work, as well

as the pronounced ability of properly-administered vitamin C to neutralise this toxicity. Dr Levy presented 'The Cause of All Disease: A Unified Theory' and 'Vitamin C and Infection: The Ultimate Antibiotic'.

For the first time, May will play host to two conferences; the first, on May 6, takes on the theme of Autoimmunity with the brilliant Tom O'Bryan, world expert on gluten and the impact it has on our health, and biologist and expert in mycology, Catalina Fernández de Ana Portela. The second, a new addition to the IHCAN Conference line-up, will take place on May 20 and focuses on Functional Sports Nutrition. This event has three expert speakers confirmed so far; Dr Tamsin Lewis, Pete Williams, and Laurent Bannock, DProf(c), MSc, FISSN, CSCS, SENr.

Gut Health will once again take the spotlight in the conference on September 9, which has its full line-up of three big names confirmed. The event will welcome Dr Nigel Plummer, PhD, who received his doctorate in microbial physiology from the University of Surrey and has been significantly involved in extensive research on the role that probiotics play in the prevention of antibiotic resistance, post antibiotic therapy, in the control of IBS symptoms and in the prevention of allergies.

Dr Plummer will be joined by Naturopath, Nutritionist and

science writer, Ben Brown, a frequent speaker at various educational institutions and conferences who has had extensive clinical experience throughout his career, maintaining a private practice in Australia and London.

The final speaker at September's conference, joining us again by popular demand, is Research Microbiologist, Kiran Krishnan, who received excellent feedback at May 2016's conference, where he gave an overview on the different strategies on probiotic bacteriotherapy and an introduction into the role of commensal spore-based probiotics.

And finally, the last conference of 2017 will take place on Saturday, November 18, focusing on 'Ageing' with the internationally recognised Dr Craig Willcox, and two other big names to soon be announced.

Every conference is now very close to selling out, so you are encouraged to book as soon as possible to avoid disappointment. Standard tickets are priced at £95, with significant discounts available for BANT members, students and members of other associations. A multiple booking discount is also available for those booking more than one conference at the same time.

To secure your place, head to www.ihcanconferences.co.uk, or call the team on 01279 810080.

THE GUT HEALTH GUIDE

The gut is a complex system, which, when not functioning properly, impacts on many areas of our health. So, with the UK suffering generally poor digestive health, how can you help? The experts offer their insights.





The foundation of health' and the often spoken Hippocrates quote, 'All disease begins in the gut' are phrases often spoken when referring to our digestive health, and this gives us some insight into the power of the gut.

But for a multitude of reasons – poor diet, rise in food intolerance, IBS-related symptoms and dysbiosis, many people's digestive systems simply are not functioning well enough to keep us in good health.

This will surely be reflected in the number of people seeking advice from Nutritional Therapists for relief from gut-related symptoms and so it's important that, as you come into practice, you are up to speed with the issues and the potential holistic solutions.

There is no doubt that we are seeing more people report gut-related issues, whether to a Nutritional Therapist or to their GP. This could be simply because there is greater awareness among the general population of digestive issues, and of course, it could also be that modern lifestyle are taking their toll on our guts, meaning they are in worse health than they used to be.

"I would not be surprised if every client a Nutritional Therapist saw had some form of gut issues," commented Nutritional Therapist, Natalie Lamb, Technical Advisor at Protexin, which has the brands Bio-Kult and Lepicol in its portfolio.

"More than 2,000 years ago, Greek philosopher Hippocrates said that 'all disease begins in the gut. I feel this is still relevant today and believe too that optimal health throughout the whole body must also begin in the gut. A number of factors ever increasing in our modern world can compromise an optimal balance of beneficial bacteria throughout the body, including antibiotic therapy, infection, medications, stress, travel, the food and drink we consume and certain chemicals

we come across every day."

Nutritional Therapist, Rachel Bartholomew, a Consultant for Nutri Advanced, added: "It's not strictly true to say 'you are what you eat'. A less snappy but much more accurate version of how your health is affected by your diet would be 'you are what you eat, and can digest and absorb'. A healthy gut lies at the root of optimal health overall, and targeting this is often the first port of call in a nutrition consultation, even when the client has come with a seemingly unrelated health problem, such as eczema or asthma."

Dr Lars von Olleschik-Elbheim, is part of the Medical Advisory board at Nouveau Health, specialising in environmental toxins and how detoxification can be done safely. He continued: "The gut is often referred to as the foundation of health and when it isn't looked after, various issues can arise, many which seem not be linked to the gut. Often, when a client has issues with skin, for example, some practitioners might overlook the possibility that the problem is actually coming from within the gut. Those with gut issues tend to make up a large part of a nutritional therapists' client base, and this aspect should always be considered when looking at why a client is suffering."

IDENTIFYING ISSUES

Symptom wise, you will know that there are some common signs that point to digestive upset, and this can be for a variety of reasons.

"Gastrointestinal complaints are among the leading reasons for people seeking healthcare. Commonly encountered problems include gastritis, ulcers, diverticulosis and inflammatory bowel disease (IBD). Even more common are the so-called 'functional' disorders, which include chronic diarrhoea, constipation, bloating and flatulence – often lumped

together as Irritable Bowel Syndrome (IBS) – as well as nutrient malabsorption and oesophageal reflux," commented Bartholomew.

Lamb added: "I would say constipation, loose stools, bloating and Irritable Bowel Syndrome (IBS) would be the most common everyday complaints. However, we are hearing of more and more people getting diagnosed with Inflammatory Bowel Disease (IBD), such as Crohn's."

"A healthy gut lies at the root of optimal health overall, and targeting this is often the first port of call in a nutrition consultation, even when the client has come with a seemingly unrelated health problem such as eczema or asthma."

Amanda Hamilton, who runs the G Plan Diet and coaching plan offering a gut-healthy 21-day detox, is a long-standing ambassador of Udo's Choice and added that we must start looking at the gut.

"In essence, Nutritional Therapists will always need to work from the inside out, no matter if a client presents specifically with gut issues or not. A healthy microbiome, the collective name to the bacteria that live in your gut, is vital to build a strong immune system and it is now understood to have a huge impact on whether or not you are likely to gain weight, and your mood," she commented.

"IBS is the common catch-all complaint, but there's a vast diversity of symptoms that fall under that description as we all know. So, I'd say constipation is really common, as is leaky gut syndrome and issues





around the balance of beneficial bacteria in the gut.”

WIDER IMPLICATIONS

Aside from the symptoms that indicate digestive upset, it is also important to look at any wider issues that could stem from poor gut health and cause problems in other parts of the body.

“There’s not many issues that can’t be traced back to poor gut health to some degree.

Gastrointestinal (GI) dysfunction can underlie many apparently unrelated conditions. For example, compromised GI function can result in a common problem known as intestinal permeability or ‘leaky gut’, where food molecules that haven’t been properly broken down pass through the intestinal barrier and into the systemic circulation,” Bartholomew explained. “This can lead to many systemic inflammatory and immune-related symptoms.

Leaky gut has been implicated in conditions such as rheumatoid arthritis, eczema, ankylosing spondylitis and many more.”

And Hamilton continued: “What doesn’t it do would be a better question. Your healthy bacteria help you to digest food, protect you against pathogens, provide essential nutrients, enzymes and hormones and train your immune system. Your gut has the largest number of immune cells and the largest number of hormonal/endocrine cells in the body. Research has found links between poor gut flora and IBS, inflammatory bowel disease (IBD), type 2 diabetes, Parkinson’s disease, Alzheimer’s disease, arthritis, cardiovascular disease, colon cancer, depression, anxiety and autism. It’s unlikely to be a straightforward cause-and-effect situation – humans are more complicated



than that. But many scientists believe it’s more than an association; a poor microbiome can actually cause disease and influence behaviour and emotions. So, in terms of what conditions in a clinic situation you can link to poor gut health, it is a never ending list!”

Immune health is top of the list of concerns.

“Most of our clients will be aware that good gut health is imperative for healthy digestive function, however, fewer will know how important it is for the immune system to function optimally. With over 70 per cent

of the immune system residing in the gut¹ and influenced by the gut microflora, any imbalance could lead to immune disorders, such as frequent infections, gastroenteritis, allergies and intolerances, atopic diseases (asthma, eczema, hay fever) and auto-immunity,” Lamb explained.

“Many IBS sufferers also tend to have a range of symptoms that do not appear to come from the bowel, but many now believe are actually related such as headaches, backache, insomnia, faintness, tiredness, bladder frequency, nausea, indigestion, itching and muscle pain.”

Dr Olleschik-Elbheim added: “The gut communicates directly with the body’s immune system and so an unhealthy gut that’s overcrowded with bad bacteria can cause autoimmune conditions, where the body starts to attack its own cells. This includes irritable bowel disease, such as ulcerative colitis and Crohn’s, in which inflammation in the intestines can cause the lining to tear.

“In this case, it would be beneficial to remove irritants, such as heavy metals and ammonium, especially when combined with excess histamine in the gut, which can worsen the problem. When the gut puts up with these inflammatory irritants for too long, the intracellular space between epithelial cells begins to widen and causes a leaky gut.

“Individuals with a leaky gut have been shown to have increased inflammation in the intestines and high levels of zonulin, which plays a major role as a tight junction modulator. Given the amount of issues that can be caused by poor gut health, it’s clear to see why many refer to it as the foundation of health and believe that this is where good overall health begins.”

Dr Olleschik-Elbheim also referred to histamine





intolerance.

“One of the most overlooked issues, which can actually cause all three, however, is histamine intolerance, and often the underlying cause of this can be attributed to a mast cell activation disorder (MCAD). In MCAD, the cells that release histamine are either unstable or there are simply too many of them that can release histamine during a reaction, or both. In this case, when the body reacts to an ingredient in food, a larger amount of histamine is released. If the gut can’t produce enough diamine oxidase (DAO) to degrade the histamine in the digestive tract, histamine is then free to be absorbed into the body, where it can circulate and cause inflammation, where there are histamine receptors, for example, the skin. More and more people are now being diagnosed with this condition, largely because more practitioners are becoming aware of it.”

PRACTITIONER PROTOCOL

So, a client comes into clinic exhibiting signs of digestive issues, so what is the advice to keep in mind, according to the experts?

“There are a number of protocols that could be considered by a practitioner. I would advise exploring the potential causes of the imbalance and trying to rectify these. In general, the three main areas I would consider are eliminating any foods that could be of

“Sugar is another big one to reduce as it feeds the bad bacteria in the gut. Therefore, complex carbohydrates should replace simple carbohydrates as the body breaks these down into sugar more slowly.”

harm, consuming food that could support a healthy gut lining and those that could help rebalance the gut flora,” Lamb recommended.

“Elimination could be after keeping a food diary and assessing symptoms, removing the main culprits, such as wheat and dairy, removing any processed foods or by following a stricter elimination, such as Natasha Campbell McBride’s GAPs diet. Glutamine, an amino acid ideal to feed the cells lining, is found in meats and high in homemade bone broth. Fermented foods such as sauerkraut, kefir, yogurt, tempeh and miso have long been consumed to help keep the gut flora balanced. Those with digestive issues may benefit from consuming apple cider vinegar before a meal. It is important to reduce simple sugars and refined carbohydrates that could encourage the growth of and gas production by pathogenic bacteria or yeast.”

Bartholomew agreed, suggesting: “Restoring gut health back to ‘optimal’ is best done using a 5R protocol, where a structured programme is followed over the course of a few months. The 5R protocol involves Remove (for example, pathogenic growth in the intestinal tract/allergenic foods in the diet), Replace (for example, stomach acid, digestive enzymes), Reinoculate (for example, beneficial bacteria), Repair (for example, nutrients to repair the GI intestinal barrier) and Retain (the level of ongoing support needed to maintain gut health).”

For Hamilton, restoring the gut to good health centres around three points.

“I have a three-step protocol that begins with gut rest – the removal of all possible trigger foods and drinks, then moves onto what I call ‘rewild’ – adding diversity of ingredients and nourishing the microbiome with pre and probiotics. Lastly, it is important to have systematic approach to rebalancing to a long-term healthy diet that

suits each individual. I also use functional testing where necessary,” she explained.

And Dr Olleschik-Elbheim continued: “Although every individual is different, gluten, wheat and dairy are usually the main suspects that cause reactions so the first thing to do would be to strip these out of the diet if they are reacting – the same applies to other ingredients which cause a reaction. Sugar is another big one to reduce as it feeds the bad bacteria in the gut. Therefore, complex carbohydrates should replace simple carbohydrates as the body breaks these down into sugar more slowly.

“Complex carbohydrates should be consumed in the morning so the body can use up the sugar throughout the day, however, the intake of complex carbohydrates should also be limited to further control sugar levels. A low histamine diet should be recommended for people who lack the DAO enzyme so foods such as cheese, pizza, nuts and wine should be avoided. This will help to restore the body’s natural balance between histamine and DAO and a rotation diet should also be considered to identify trigger foods.”

NUTRITIONAL SUPPORT PROGRAMME

In addition to dietary changes, it is important to build in a supplement programme that can both help with the symptoms, but also restore the gut to better health for the long-term.

Probiotics remain an excellent option, and for a multitude of reasons.

“A multi-strain probiotic would be my first choice of supplement to help restore the balance of beneficial bacteria and overall gut health. If you were to follow a more tailored 4 or 5R program, you may also include some anti-microbials, digestive enzymes, and a glutamine powder,” Lamb suggested.





Bartholomew continued: “Key supplements in a gut health programme include digestive enzymes, stomach acid, anti-microbials, such as berberine, grapefruit seed and oregano oil, vitamin C, high quality probiotics, gut repair nutrients, such as L-glutamine, and beneficial fibres, such as psyllium husk and apple pectin.

“There is a lot of research at the moment into the impact of the intestinal microflora on many aspects of health from GI function to cognitive function and even obesity and depression. Probiotic supplementation is now considered to be as essential as taking a daily multivitamin, however, practical barriers, such as having to keep them in the fridge, have often got in the way of many people managing to stick to this as a daily routine. New and advanced formulas which deliver high strength probiotics, yet in a much more stable form that don’t have to be kept in the fridge, have transformed patient compliance in this area.”

Hamilton added: “I use targeted potent probiotics, it is so important to fit the probiotic to the age and stage of the client for maximum impact. Digestive enzymes can be of real help too. In addition, I use fermented foods, such as kefir.”

Dr Olleschik-Elbheim suggested a number of options, commenting: “To restore gut health and health in general, supplementation with a quality probiotic is usually recommended alongside magnesium, calcium and vitamin D, however, these can only do so much to bring the body back into balance. There is still the issue of irritants, which supplementation and dietary changes alone cannot completely overcome and this is due to environmental toxins, such as lead and mercury, as well as the ammonium created when the body

breaks down protein in the intestines. These harmful substances push the body’s metabolic processes, which aren’t designed to handle such a huge toxic burden. As such, the body needs help to eliminate these harmful substances from the digestive tract and clinoptilolite particles are the ideal tool for this. Clinoptilolite is a form of zeolite derived from volcanic ash, which acts like sponge that can absorb lead, mercury, histamine and ammonium and store them in “cages” running through the particles.

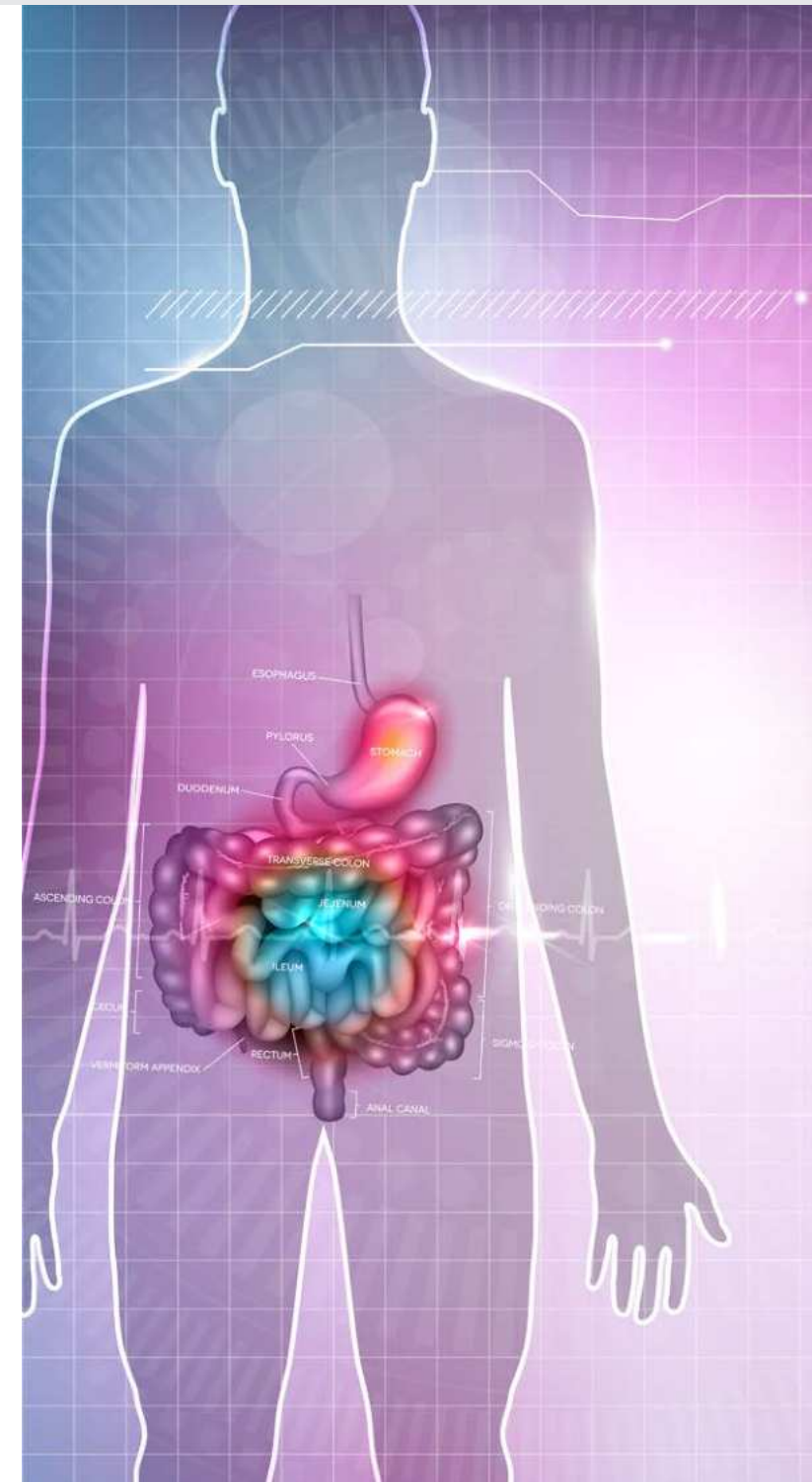
“The ideal form of clinoptilolite is called MANC, which works on the other side of the equation – whereas supplementation adds vital vitamins and minerals, MANC draws out harmful substances that can cause health issues and gut dysbiosis. It’s processed to clean out anything that it’s already absorbed and only the particles large enough to avoid absorption the body are used. This turns MANC into a tool that can be used to travel through the digestive tract, pick up unwanted substances and leave the body gently through natural bowel movements.”

Hamilton also pointed towards the increased adherence to personalised nutrition, commenting: “A therapeutic diet and supplement programme for gut health is becoming more and more personalised, and this will continue to evolve. In the meantime, fermentation and fermented ingredients alongside prebiotics are the emerging trends to keep on top of.”

Advising lifestyle changes is also critical.

“Chronic stress can play havoc with gut health so if this is identified as a problem then stress reduction strategies are essential. Gentle exercise can support healthy gut function too,” Bartholomew recommended.

Hamilton agreed, adding: “Stress has a significant





impact on health and the gut, not to mention the fact that it drives the behaviours that tend to be unhelpful to wider health! Exercise is a great help to the digestive system too, and of course can also help with stress, so that's a must. Last but not least, sleep remains underrated in terms of importance, not specifically for the gut but for overall body functioning and recovery from burn out or ill-health, or to simply help achieve optimum health."

And Lamb advised: "It is imperative to look at stress levels. Stress has been shown to disturb the mixture of bacteria in our gut microflora by reducing the number of beneficial strains of *lactobacilli* and *bifidobacteria*, which, in turn, allows an increase of pathogens such as *E. coli*.² Stress can initiate or worsen disease, and this occurs through an interaction between the body's nervous system and immune system in the gut.³

"Digestive enzyme production starts in the mouth and is stimulated by sight, smell, chewing and presence of food so encourage home cooking, chewing food well, and eating in a relaxed environment."

RESEARCH FOCUS

Evidence is constantly building when it comes to gut health and nutritional intervention.

"There are now nearly 20,000 studies that show up on pubmed when you put in the word 'probiotics'. Research results vary, as do the length of studies, populations groups included, the quality and quantity of the probiotics used, the conditions observed and the techniques used. Probiotic studies rarely incorporate lifestyle and dietary changes as we would in practice but still give an extremely useful indication of efficacy," Lamb commented.

"Interestingly, gut dysbiosis is now being discussed more specifically in terms of the gut microbiome being

less diverse and less rich with an increased Firmicutes/ Bacteroidetes ratio and a decrease in acetate- and butyrate-producing bacteria and an increase in lactate-producing bacterial populations.⁴

"The mechanisms of action of probiotics are beginning to be more widely understood in a wider range of conditions. For example, the pathogenesis of Irritable Bowel Syndrome (IBS), once thought to be largely psychogenic in origin, is now understood by researchers to be multifactorial. One of the reasons for this paradigm shift is the realisation that gut dysbiosis, including small intestinal bacterial overgrowth (SIBO), causes IBS symptoms.⁵ I am seeing more and more GPs now recommending over the counter purchase of probiotic supplements to their patients."

Bartholomew added: "New research suggests that maintaining a healthy balance of bacteria in the gut may help to support reduced cravings, weight loss, and reduce the risks of metabolic problems, such as type 2 diabetes. This research is still in its infancy, but some early studies have linked anxiety, depression, autism and hyperactivity to alterations in the gut microflora."

Hamilton pointed out: "It's only been in the past 10 years that we've had the knowledge and technology – rapid gene-sequencing techniques – to identify different strains of bacteria and what their function might be. Everyone's microbiome is unique, like a fingerprint. The interactions between microbes are complex and there's much we've yet to learn. But, you'll often hear the gut talked about as our 'hidden brain', or 'silent voice'. That's due to something called the brain-gut axis and the fact these two organs are far more closely connected than you might imagine. But we now know the brain-gut axis works both ways and stimulation of the gut can activate circuits in the brain.

"Another key area of gut research is focusing on





weight loss. Studies in obese and lean sets of twins have shown that lean twins have a vibrant and diverse microbe community, while obese twins have far fewer useful microbes. Gut microbes are involved in metabolism. They can alter the way we store fat, how we balance our blood glucose levels and how we respond to hormones signalling hunger and satiety. Having the wrong mix of microbes might set us up for obesity and type 2 diabetes.”

Dr Olleschik-Elbheim highlighted research around MANC, commenting: “In vitro studies have shown that MANC absorbed 45 per cent mercury, 95 per cent of histamine and 85 per cent of ammonium, in addition to many other substances which MANC has the ability to bind, including aluminium. The evidence base behind MANC and its effects on gut health is continuing to grow and promising results have been observed. The latest study on MANC showed its effect on 52 patients with leaky gut syndrome. Over a period of 12 weeks, the patients were administered 1.85g of processed clinoptilolite, which lead to a reduction in zonulin levels. The study concluded that the use of MANC is effective in reducing intestinal inflammation and improved the integrity of the intestinal barrier, thereby strengthening the digestive tract.”

BEST FOR BABY

Looking more specifically at baby gut health, Lamb explained there are certain approaches to take.

“Having a balanced gut flora is important for everyone, but especially important from birth to give the infant the best possible start in life. The trillions of microorganisms in the gut (including many types of bacteria) play an essential role in supporting strong immune and digestive systems. At birth the infant’s gut flora is obtained from the mother and environment around them,” she

“Probiotics have been shown to positively influence the infant’s gut flora balance⁹ and developing immune system,¹⁰ showing promising results in the prevention and management of infectious diarrhoea and allergies in particular.”

explained.

“Originally thought to be born sterile, new research is indicating some microbes may travel via the placenta to the foetus.⁶ During birth, infants born vaginally are exposed mainly to microbes that originate from the mother, whereas those delivered by caesarean section appear to acquire intestinal flora mainly from the environment.⁷ Breast milk is a natural source of continuous bacteria, with bifidobacteria understood to be the predominant species in a breastfed infants gut.⁷ Breast milk also naturally contains a prebiotic,⁶ which is essentially a food source for beneficial bacteria, such as *bifidobacteria*, imperative to selectively increase numbers in the immature and developing gut.

And what impact can be seen upon a child who doesn’t have a healthy gut flora from birth?

“The composition of the gut flora profoundly influences the development of the immune system and the gut mucosal lining.^{6,7} A strong protective gut flora and immune system is imperative to protect the infant in the short-term against the common cold, respiratory infections, infectious diarrhoea and other stomach bugs. In the longer term, the incidence of allergic diseases such as eczema, asthma and hay fever are ever increasing in early life and are associated with an altered or less diverse gut microflora, an impaired gut lining and

a malfunction of the immune system,” Lamb explained.⁸

“A balanced gut flora is necessary to assist in the digestion of milk and the later introduction of solids, regular healthy bowel movements and a strong protective gut lining (where food absorption takes place). Any imbalance could lead to digestive symptoms such as constipation, diarrhoea, bloating, flatulence and cramping. The gut flora appears to be imbalanced in infants suffering from colic.”⁹

Therefore, it could be recommended to parents that they add probiotics to their child’s diet.

“Probiotics have been shown to positively influence the infant’s gut flora balance⁹ and developing immune system,¹⁰ showing promising results in the prevention and management of infectious diarrhoea and allergies in particular.¹¹ Probiotics given to infants from birth seem to increase resistance to common coughs and colds and reduce the need for antibiotic use,” Lamb explained.¹²

“Research suggests that a probiotic given directly to an infant is more likely to become part of its resident gut flora opposed to that given to the mother and delivered via the breast milk¹³ but both are valid routes. As with many studies, results vary and probiotics often appear to be more effective as prevention opposed to treatment.¹⁴ Probiotics are generally not found in commercial formulas due to the required high water temperature destroying the live bacteria. Probiotic powders should be added to the formula once at the temperature ready for consumption by the infant.

“A review in 2011¹¹ that looked at 16 studies of 3,432 infants giving probiotics directly to infants from the first day of birth noted that no serious adverse events were reported. A multi-strain probiotic appears to be more effective against a wider range of symptoms and conditions than single strain products.”¹⁵ ●



Most bioavailable
and sustainable
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Novel delivery system for optimal
bioavailability & effectiveness of tocotrienols

Health through nature, science and innovation



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SKIN-DEEP SOLUTIONS



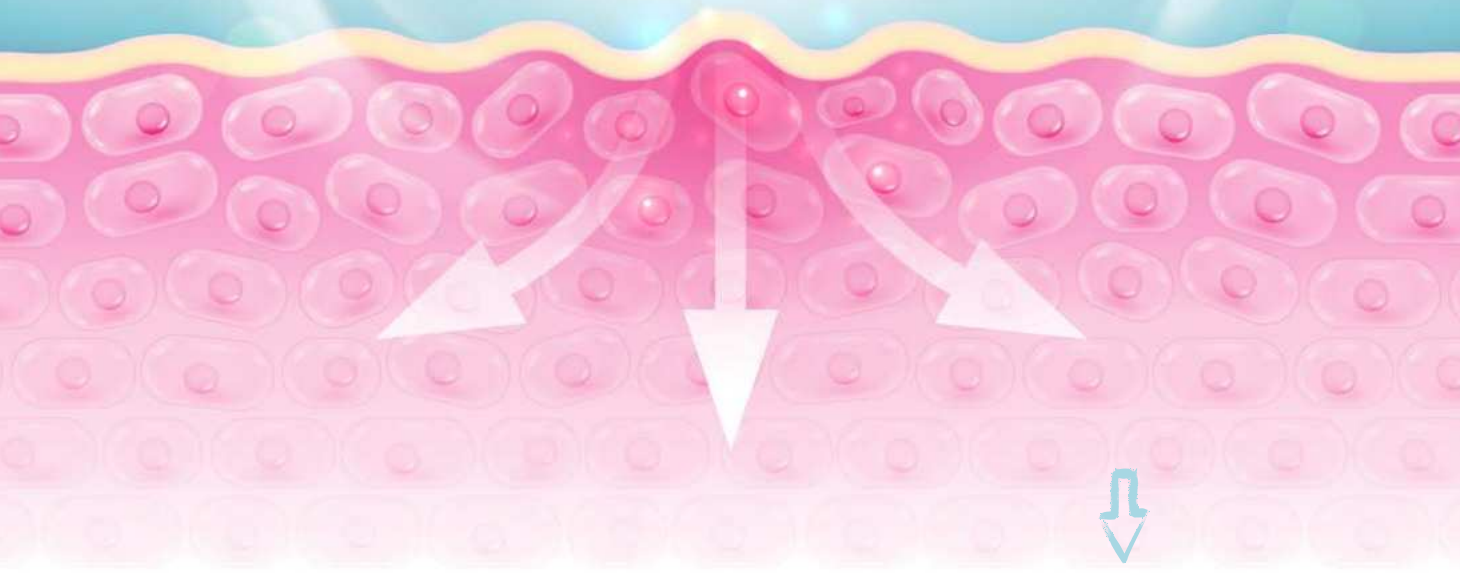
Skin conditions are on the increase, and it requires an inside out approach to tackle. Here, our experts offer their recommendations.

We spend many millions as a nation on the latest beauty products, whether it's in the quest for younger looking skin, or to control skin related issues. And while a healthy skincare regime is absolutely crucial, far too often, the importance of our internal health gets cast aside in relation to healthy skin.

This is especially the case when it comes to skin conditions, the incidence of which appears to be on the rise, particularly among young children.

Skin conditions, the most common of which include eczema and psoriasis, can be hugely exacerbated by diet and lifestyle choices, not to mention the products we put on our skin, and research is growing when it comes to nutrition as a preventative measure.

"We are seeing an increase in the number of people suffering from a wide range of skin





conditions. We come across these concerns at the dermatologist, pharmacy, health stores, but also in nutrition clinics,” commented Isabelle Nunn, Technical and Commercial Nutritionist at Kinetic Enterprises.

“The most common skin conditions we are coming across are atopic dermatitis, also referred to as eczema. Adult acne might sound unusual but it is also a condition on the rise, affecting 25-40 year olds. Psoriasis is another chronic skin condition, affecting about two per cent of the population, which appears to be on the rise as well. The latter is seen on the rise due to poor prevention and management of the skin condition.”

Katie Bell, Technical Services Assistant at Viridian Nutrition, pointed out: “The British Skin Foundation states that there are approximately eight million people suffering with skin conditions in the UK, and it is one of the most common reasons for visiting our GPs. Although genetics can have a significant impact on skin outcomes, environmental and lifestyle factors are most frequently involved. Diet, sun, toxin exposure, and even the workplace can all contribute to the onset and exacerbation of a skin condition.”

Claudia Talsma, from Salcura, which specialises in skincare products related to skin conditions, added: “Although we have not found any scientific data to support this assumption, common belief is that

“The British Skin Foundation states that there are approximately eight million people suffering with skin conditions in the UK, and it is one of the most common reasons for visiting our GPs.”

skin conditions are on the rise and for the past few years, articles have appeared underlining the trend that common skin diseases like eczema are on the rise. A variety of reasons can be found for this rise in skin disorders, many of which have to do with often the source of the problem – the immune system responding to a certain substance in an abnormal way. Food sensitivities are often attributed to a rise in skin disorders and can be seen as a trigger for skin disorders. Especially in the Western world, the diet is known to have become worse, with more people eating processed food with little nutritional value, making the immune system weaker.”

IN CLINIC ANALYSIS

It is relatively obvious to spot signs of a skin condition in a client, as they will present with some common symptoms.

Nunn commented: “Atopic dermatitis is associated with symptoms such as a red, itchy, sore, dry and uncomfortable rash. The rash may be raised and spread easily on the skin, but can also become infected and lead to bleeding when quite advanced. Adult acne would be seen as swollen spots, which may be red or pustular when containing bacteria.

“Psoriasis would appear as dry, red and scaly patches of skin. These can be sore and itchy. Just like atopic dermatitis, there are different types of psoriasis and symptoms vary as such.”

Bell advised: “Eczema presents differently depending on the life stage and in some cases, it can subside completely in adulthood. Symptoms include redness, blistering, scaly and dry skin. Psoriasis usually onsets later in life and can come and go unpredictably. It presents as red, itchy, silvery-white scales, often situated at the scalp, lower legs and groin area.



Common signs of acne include, oily skin, black and white heads, and puss filled spots, which can often lead to scarring.”

But do also keep in mind that there are likely to be things going on internally that can be beneath the surface, but also contributes to skin problems.

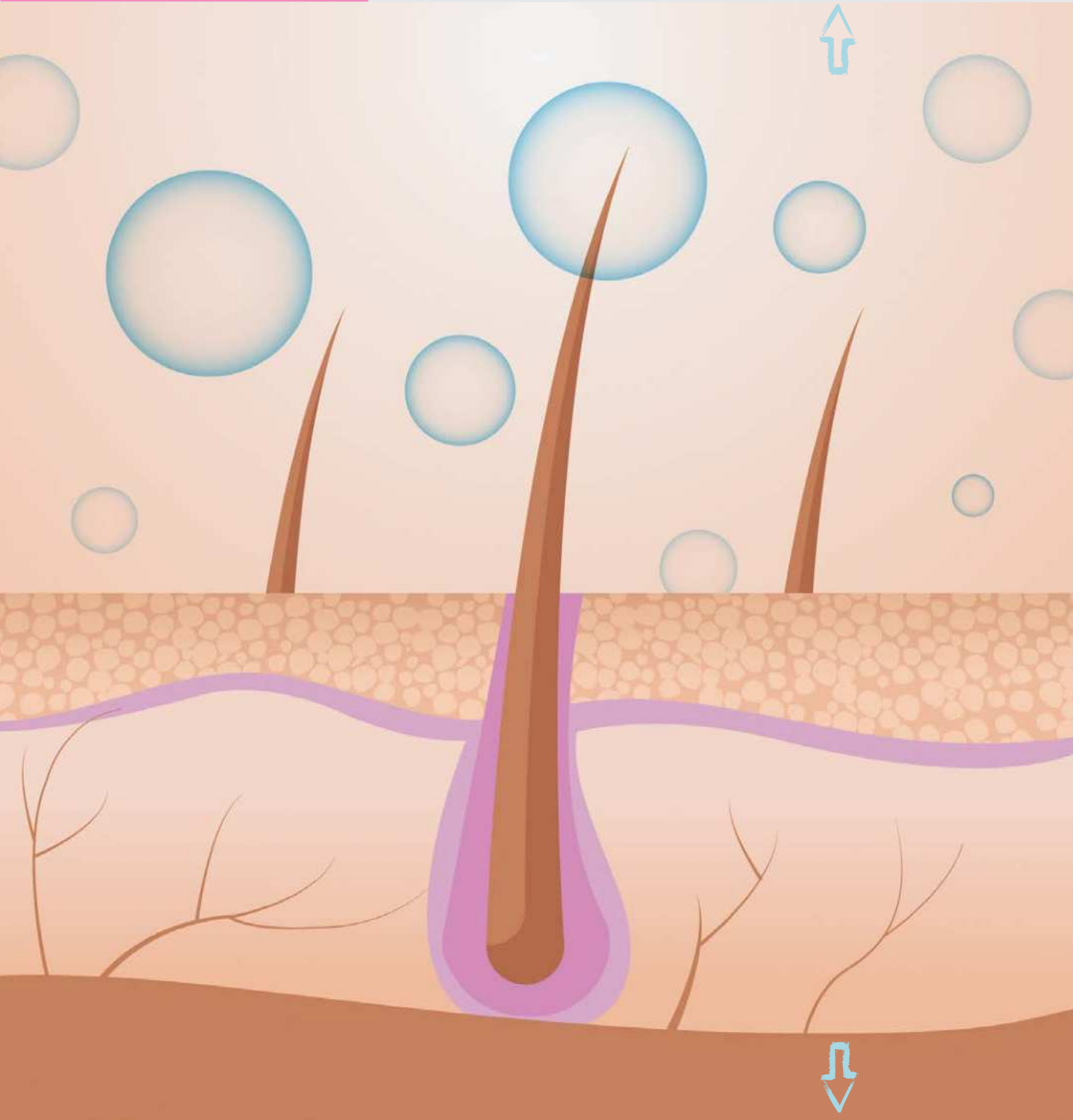
“Skin conditions have been found to be linked to digestive disorders. First of all, this can be due to a poor diet, lacking in essential nutrients that support healthy skin. From a naturopathic and holistic point of view, we see more and more skin conditions linked to hormonal imbalances and adrenal imbalances. An adrenal imbalance would be linked to the production of our stress hormone-cortisol produced by the adrenal glands,” Nunn explained.

Bell agreed, adding: “Your skin is the largest organ in your body, and plays an important role in detoxification. Therefore, the condition of your skin is likely reflecting what’s going on internally. Skin disorders like eczema and psoriasis are often a manifestation of a systemic inflammatory state in the body. Evidence has linked skin disease to multiple comorbidities, including, circulatory problems, diabetes, metabolic syndrome, arthritis, depression and anxiety.”

Nelly Bennett is a Nutritional Therapist and Skincare Advisor for Mahi Naturals, which has the Hope’s Relief range in its portfolio, and pointed out: “There is a link between eczema, asthma, rhinitis (hay fever) and those suffering from asthma or rhinitis can suffer from eczema. Eczema has been linked to low stomach acid, leaky gut syndrome, candiditis and food and environmental allergies.”

ADDRESSING THE CAUSES

Of course, there are a myriad of factors that determine



if you suffer with a skin condition, and also the severity.

“Common factors include environmental pollution, dietary patterns, stress, skincare routine, general health, the type of lifestyle being led and possibly family history,” Nunn explained.

Talsma added: “For people who genetically are prone to skin disorders, other factors can contribute to their skin being more sensitive. We shower and bathe more often, which disrupts the skin’s natural oils and protective layer. The use of certain make-up can also aggravate the skin. Often products contain harsh chemicals, disturbing the skin further and water itself can be very hard and therewith dehydrating the skin.

“Additionally, pollution can play a part, stress levels that have risen with modern day pressures and clothing can also play a very big part, with more synthetics being used when making clothes, with the materials aggravating the skin further.”

But are certain people more susceptible to developing such a condition than others?

Nunn pointed out: “Individuals who could be more susceptible to skin conditions or a worsening of those include those who do not cope well with stress and a hectic lifestyle and do not undertake stress reducing techniques, be it meditation, pilates or even swimming.

Education and awareness is also key with regards to the link between a healthy digestive system and particular types of diet. For instance, in some cultures, we may be relying heavily on ghee, vegetable oil, regular animal based meals or snacks quite high in sugar. Undeniably, being unaware, of how these can affect the skin negatively would not trigger an individual to change their diet necessarily when experiencing inflammatory skin conditions like eczema, psoriasis or acne. As for some skin related



conditions, such as eczema, it is common to have a family history of asthma, hay fever or eczema, whilst in psoriasis, there is also a genetic component.”

The gender you are can also play a role when it comes to certain skin issues.

“Women may be more susceptible to adult skin acne, caused by fluctuating hormones during pregnancy, the menstrual cycle or even changing methods of contraception. Working mums coping with a demanding lifestyle while raising families, in addition to a diet which highly contributes to changes in hormonal levels, is very common in today’s world,” Nunn added.

Talsma continued: “The more one reads, the more it becomes clear that there are certain socio-economic factors that could be influencing the disease, but more research needs to be done. For instance, it is believed that children of a higher socio-economic level have more eczema, but it may be that more children are diagnosed because they are taken to the doctors. Additionally, it is believed that certain factors influence health in general – for instance, higher education, better financial situation all contribute to health.

“As skin disorders are most often than not caused by either food, products that we use on ourselves, stress, etc., it can be stated that lifestyle choices most definitely influence how our skin looks and feels. Your skin is a reflection of yourself, like a mirror to your inside. If you are not eating healthily, exercise, drink water, and use skin-friendly products, you will inevitably be more prone to skin disorders.”

Bennett added that people with genetic weakness can be more susceptible, adding: “In family, where there is a history of eczema, stressed people as this can exacerbate the condition, those with food intolerance, those whose diet is not balanced, anti-

inflammatory and hormonally balancing and babies and children, elderly people as they have sensitive skin, and those with poor hygiene routine.”

“Gluten, eggs and wheat are common intolerances amongst many others. When intolerances are left ignored, they can damage the lining of the gut and cause further consequences to digestive problems, such as skin conditions.”

THE STRESS EFFECT

Stress has a lot to answer for in relation to a host of health issues, and this includes the skin.

Bell explained: “Lifestyle and skin health come hand in hand. Sleepless nights, stress, and smoking can all lead to tired looking skin. Dehydration can cause dry and flaky skin, whilst eating highly processed foods or drinking too much alcohol often results in puffy, oily skin. Regular exercise, a balanced nutritious diet, which will take care of your insides, will help you glow on the outside.”

Stress can also lead to other associated contributory factors, such as disturbed sleeping patterns, erratic eating habits and less attention paid to your skincare routine.

“Living in cities where the environmental pollution can make symptoms worst,” Nunn added.

Bennett suggested: “Yoga, tai chi and meditation supports the nervous system.”

DIETARY CHOICES

Diet plays a critical role in the development of skin

conditions, and this is especially the case when it comes to children, as it is in younger years that people can develop problems.

“A diet high in inflammatory foods can contribute to inflammatory skin conditions. These commonly include dairy, red meat, unrefined flours and sugars but also diets high in alcohol and coffee. Developing skin conditions can also be linked to food intolerances, whereby the body reacts to particular foods by triggering an immune response,” Nunn explained.

“Gluten, eggs and wheat are common intolerances amongst many others. When intolerances are left ignored, they can damage the lining of the gut and cause further consequences to digestive problems, such as skin conditions. A diet high in processed foods is often high in what we refer to as trans fats, which help prolong the shelf life of processed foods. Trans fats are inflammatory in nature and affect overall health and digestion in many ways. Processed foods also often have a high content of salt, sugar and other combination of ingredients, which negatively affect our health and can predispose us to skin conditions. For psoriasis, where the rate has been low in the past, it is now on the rise due to the poor dietary patterns combined with stress, making the chronic skin condition a lot worse.”

Theresa Cutts, Nutritional Consultant at Natural Trade Brokers, which works with Salcura, added: “A poor diet and unhealthy eating habits will eventually be reflected in the skin and make an individual more prone to skin irritations, breakouts and poor condition skin. Some people also find that being intolerant to certain foods may exacerbate or trigger skin conditions. The most common tend to be foods such as citrus fruits, dairy and wheat. Some will also find alcohol may trigger a skin reaction, especially in the





case of conditions such as acne rosacea.

“A lack of oils and good fats in the diet can make the skin more likely to be dry and possibly increase dry and flaky skin conditions. Allergies and intolerances can mean that any food can cause a reaction in an individual, a food diary, along with notes of the skin condition, may help pinpoint any particular foods which may be a contributing factor. A varied and balanced diet can really help keep skin in good condition, but for those that are prone to dry or irritated skin conditions, there are a few things you can do to help keep the skin healthy.”

So, when considering recommendations for a client with a skin condition, what is the best protocol?

Nunn advised identifying of any food sensitivities.

“From a dietary perspective, identifying the food triggers to a particular skin condition is worthwhile and this can easily be done with food intolerance tests. Individuals may also keep a log and go through an elimination diet with the help of a nutritional therapist. This involves a whole program to help restore the digestive health and supporting the immune system. Supplements are only advisable depending on the individual and where they are in the program,” she commented.

“Making sure that our diet is high in healthy forms of protein and not solely relying on animal based protein helps. Amino acids found in protein are also

the building blocks of collagen, which is important for healthy skin. A diet that contains essential fatty acids in the form of oily fish, avocado, a few nuts and seeds will support dry skin conditions and help to reduce any inflammatory reactions. Integrating fibre through wholegrains, legumes and green leafy vegetables helps us to keep our digestion in check and these help to bind to toxins in the body, supporting their elimination on a regular basis. Zinc found in pumpkin seeds and oysters is essential for skin renewal and healing and can support healthy skin.”

Bell pointed out: “It is important to look at the bigger picture, as mentioned before, skin disease can often be a manifestation of an inflammatory state within the body. Therefore, improving the internal environment could make a huge difference. A food diary can be used to investigate associations between food and skin irritation, and recognise if there are any nutrient deficiencies. Another frequently used method is an elimination diet, which excludes certain food groups such as dairy, gluten, refined sugar, eggs, and slowly introduces each component back in to the diet, to see if there are any responses.

“Obesity, especially central-obesity, can contribute to the development of skin conditions. Advising weight loss through regular exercise, a low-calorie but nutrient dense diet, free from added sugars and processed foods, could help reduce the severity of symptoms. Promote healthy eating through a Mediterranean-style diet plan, full of anti-inflammatory nutrients, such as fresh fruit and veg, oily fish, nut and legumes, whilst cutting down on red meats, processed foods and refined carbohydrates.

“Probiotics improve gut health and support immune functioning, and omega 3 fatty acids to fight inflammation. Balancing a busy lifestyle and





healthy diet can be challenging, especially when trying to consume the volume of nutrients you need each day. Therefore, supplementing with a good quality nutritional food supplement could be just the thing for you, ensuring you keep stores replenished and topped up!”

You could also advise people include plenty of alkaline greens in the diet.

“Beta-carotene found in bright coloured foods supports the healing process. These can be found in sweet potatoes, carrots, or winter squashes, not to forget purple coloured foods, which are very rich in antioxidants and fantastic for the skin. Healing skin supplements include zinc, vitamin C, essential fatty acids, and vitamin E, amongst others,” Nunn suggested.

Cutts added: “A diet with plenty of oils from either oily fish or plant sources, such as seeds and nuts, hemp oil and avocados, can all make a difference. Supplements that can support healthy skin will depend on the specific condition, but omega 3 oils such as fish oils or flax can help keep skin smooth and moisturised. B complex supplements are useful if the condition is stress related.

“Antioxidants such as vitamins A, C, and E, minerals including selenium and zinc, and also CoQ10 can also help keep skin healthy and may play a role in preventing fats from oxidising. This is considered to be one of the problems causing acne. Taking a multivitamin and mineral on a daily basis ensures that nutrients that may be missing from the diet, to help maintain healthy skin. If there are food allergies or intolerances, then it makes sense to avoid or limit the intake of the trigger foods. As always, it comes down to good nutrition, healthy skin is a sign of a healthy body, watching what you eat and ensuring a good intake of nutrients can go a long way in helping maintain healthy skin.

SKINCARE ROUTINE

Many mainstream skin experts may recommend steroid-based creams for skin conditions such as eczema, which are designed to help the symptom, rather than the cause. But they have their side effects, and there are other options.

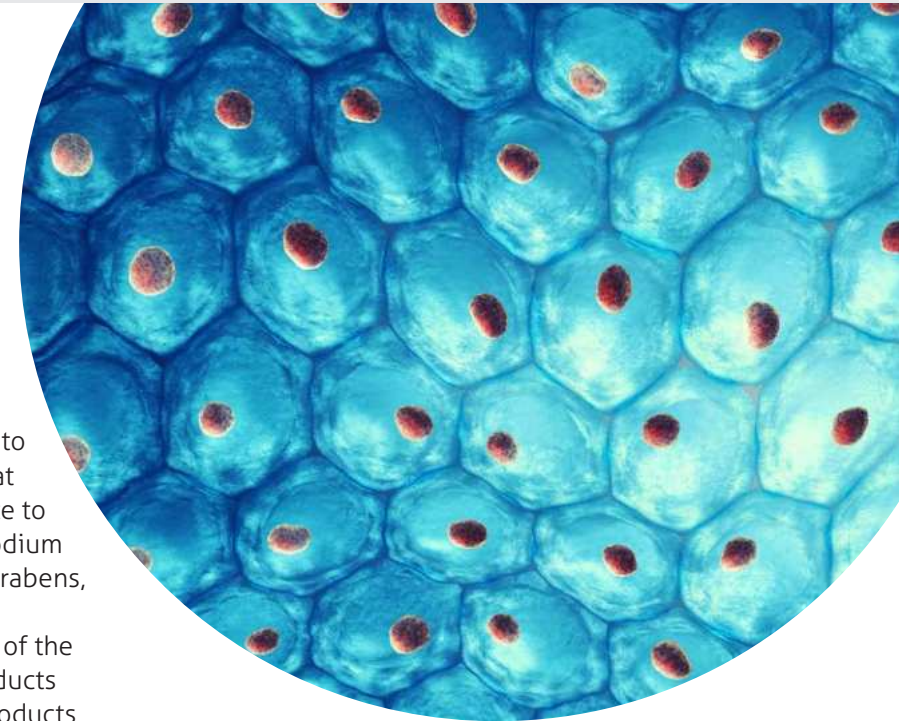
“Every skin is different, every person is different so one general advice would be hard to give. However, from our experience we find that avoiding certain harsh chemicals will contribute to greater skin health. Think of ingredients like sodium laureth sulfate, synthetic parfum, fragrance, parabens, and phthalates,” Talsma said.

“Additionally, people need to become aware of the dangers of using paraffin or steroid-based products long-term (most over the counter pharmacy products for eczema and psoriasis and doctor prescribed products) as research shows that people can actually be or become allergic to paraffin (as well as paraffin being flammable). Going natural with possibly some very gentle synthetics (needed as stabilisers and preservatives) will always give long-term better results.”

Nunn advised to look at ingredients lists.

“It is advisable to eliminate any ingredients that could irritate a generally sensitive skin and aggravate any inflammatory skin condition. For instance, irritating chemicals, any alcohol, fragrance or citrus type of fruits can easily affect skin that tends to suffer from atopic dermatitis or psoriasis. Calming and soothing ingredients to look out for include oats, aloe vera, shea coconut, chamomile or jojoba oil,” Nunn added.

“As for psoriasis, dermatologists would often recommend topical treatments, and despite some of



them being suitable for some skin, try out more natural products and pick the one that suits your skin best. For adults experiencing acne, making sure to avoid the harsh ingredients such as salicylic acid, benzoyl peroxide, alcohol or topical antibiotics is better in the long-term, even if they seem to provide a quick solution. Despite the fact that acne may be linked to an overproduction of sebum, we may get into a habit of using products that dry out the skin. However, we need to be nourishing it with natural moisturising and soothing ingredients as mentioned and natural anti-bacterials like manuka honey and other botanicals.”

And Bennett continued: “Use hypoallergenic skincare products that do not contain any nasty chemicals, which might exacerbate the condition and trigger the flare-ups. Refrain from taking hot and long bath/showers, avoid allergenic foods and cosmetics, skincare and haircare containing nasties.” ●

UNDERSTANDING INFLAMMATION

Inflammation can be a biomarker for a number of serious conditions. Here, leading nutritionists offer their insights into this complex area of healthcare.





When we hear the term 'inflammation', we may often relate that to our joints and pain experienced after trauma, exercise or arthritic related. But inflammation runs far deeper than that, with excess inflammation being connected to serious heart and brain conditions, among others.

"Inflammation can be obvious pain, such as swollen joints and period pain, but it can also be silent inflammation as in the case of osteoporosis, cancer, auto-immune conditions, diabetes, premature ageing, migraines, IBS, Alzheimer's and dementia. Even conditions like eczema are inflammatory and the less obvious, such as asthma. In fact, it is fair to say that most diseases have some kind of underlying inflammatory link," explained natural health expert, Dr Marilyn Glenville PhD.

WHAT IS INFLAMMATION?

So, what is the actual definition of inflammation?

Nutritional Therapist, Jenny Logan, Technical Training Manager at Natures Aid, explained: "Anything that ends in 'itis' is an inflammatory condition and we will often be very aware of it as the symptoms that we experience include pain, swelling, redness, heat and loss of function in the area affected. Inflammation is a vital part of the body's natural healing and repair process. The purpose of inflammation is to remove harmful stimuli from the body and to promote healing after an injury or trauma. It is an essential process and can be your friend.

"The most common causes of inflammation are infection, surgery, trauma, chemicals – like drugs or venom and extremes of heat or cold. In each of these cases, the role of inflammation is to make us aware of the damage and get the repair process started. Generally, each of these situations will lead to an acute

inflammatory response. However, there are instances where the inflammatory process goes into overdrive and in this situation, chronic inflammation becomes something that starts to limit our life and affect our health, we will most often see this with problems like allergies (such as hay fever), arthritis, autoimmune diseases (for example, rheumatoid arthritis), heart disease, periodontitis and atherosclerosis."

She added: "The role of inflammation and its associated problems can be summed up in this quote by Mansour Mohamadzadeh, PhD, Director of the Center for Inflammation and Mucosal Immunology at the University of Florida: "In a healthy situation, inflammation serves as a good friend to our body. But if immune cells start to overreact, that inflammation can be totally directed against us."

Romina Melwani, Mycotherapist and Nutritional Therapist for Hifas da Terra added: "Inflammation is a response triggered by damage to living tissues. The inflammatory response is a defence mechanism that evolved in higher organisms to protect them from injury and infection. The inflammatory process involves a complex biological cascade of molecular and cellular signals that alter physiological responses, ultimately resulting in the known clinical symptoms of pain, swelling, heat, and redness. Inflammation triggers the symptoms of many diseases. It is the common link between debilitating diseases as heart disease, stroke, cancer, diabetes, obesity, Alzheimer's, arthritis and visible signs of ageing."

Dr Glenville continued: "There are a group of molecules called cytokines, which are proteins that stimulate or calm the response of the immune system. If there is an imbalance between these cytokines, it can push the body into a more pro-inflammatory state. We know that fish oils help to increase the number of

"It is fair to say that most diseases have some kind of underlying inflammatory link."

anti-inflammatory cytokines. We have seen a shift in the ratio of omega 6:3 through a simple finger prick test, with a predominant level of omega 6, which can actually become pro-inflammatory. Low vitamin D exacerbates inflammation, as does a diet high in animal fat (meat, cheese) and low in oily fish, nuts and seeds, turmeric and brightly coloured fruit and vegetables. A virus or bacteria can trigger an inflammatory response as can chronic stress."

But Nutritional Therapist, Rachel Bartholomew, Consultant for Nutri Advanced, pointed out that, in small amounts, inflammation is not actually the enemy.

"There can be a tendency to view inflammation as something that is harmful to the body, yet it is actually a protective and restorative process, whereby the body tries to rid itself of chemical toxins or foreign invaders, or repair itself following injury. It's when inflammation becomes excessive or uncontrolled that it becomes a problem and delayed healing or chronic inflammatory conditions can result," she explained.

Andy Thomas, founder of BetterYou, which has just launched a new turmeric oral spray, added simply: "Inflammation is the body's response to something that is not normal or natural, and it always starts as acute. It's the body's natural response to injury, any form of deviation from the norm; the body will create inflammation to make you come back to the norm. Inflammation, therefore, by itself is not a bad thing. However, it is important to note that the acuteness must be carefully managed. Inflammation becomes a problem when the signs are ignored and the acuteness





is not managed, as it will proceed from acute to chronic inflammation, which could lead to various chronic diseases, including heart disease, cancer, metabolic syndrome, Alzheimer's and various degenerative conditions."

INFLAMMATORY MARKERS

So, where does inflammation occur? And what impact does this have on various aspects of our health and wellness?

Bartholomew explained: "Inflammation can be widespread throughout the body and can affect areas as diverse as the gut, skin, joints and even the brain. When inflammation becomes excessive or uncontrolled, you may begin to see delayed healing or chronic inflammatory conditions. There is much research now pointing towards the idea that it may be at the root of many chronic diseases, including cardiovascular diseases, rheumatoid arthritis, ulcerative colitis, Crohn's disease, asthma, psoriasis, lupus, fibromyalgia, and even depression."

Melwani, Mycotherapist and Nutritional Therapist for Hifas da Terra, added: "Areas of injury can be anywhere in the body on skin surface, muscles, joints, connective tissues and bones. Inflammation can also be found in the gut as 70 per cent of your immune system is located in our digestive system. Immune cells in the gut seem to be able to activate inflammatory cells throughout the body. This may explain why the majority of inflammatory diseases start in the gut.

"If the agent causing an acute inflammation cannot be eliminated, or if there is some interference with the healing process, an acute inflammatory response may progress to the chronic stage. When the immune system is overburdened, these inflammatory triggers are cycled continuously through the blood where they

affect nerves, organs, connective tissues, joints, and muscles. This began the evolvement of several diseases."

And Dr Glenville went on: "Inflammation affects the joints, knees, hips, around the pelvic area as with painful periods and IBS, skin (eczema). Many areas are less obvious as they are silent, as in the ones listed above. Another example of this is with diabetes, where the cell receptor can become rigid and inflexible, which has been triggered by inflammation. This wouldn't be obvious as there is no tangible 'symptom' apart from insulin resistance and potential diabetes."

If we are looking at the obvious signs, Logan explained: "The main symptoms of inflammation are:

- Heat, swelling and redness, which is caused by the first stage of the inflammatory response, vasodilation, and increased blood vessel permeability. The beginning of the inflammatory response dilutes the blood vessels, allowing more blood to flow into the affected area, allowing phagocytes and anti-bodies better access to the area to begin the removal of damaged tissues and pathogens. The extra blood flowing into the area obviously causes it to become red and increases the heat in the area. The swelling is caused by the increased fluids.

- Pain – pain can also be caused by the vasodilation. As the area swells, it can press onto the local nerve endings, leading to pain messages. Pain can also be caused by irritation of the nerve endings by the toxin the body is responding to."



Melwani added: "We may also experience inflammation in the form of a fever as our body heats up to eradicate the effects of an invading virus. Fever is brought about by chemical mediators of inflammation and contributes to the rise in temperature at the injury. When we get hurt, the injured area becomes inflamed as a protective measure to prevent further injury."

DIETARY INTERVENTIONS

It is imperative to consider the very real impact that our diet and lifestyle can have on the level of inflammation in our body, particularly identifying the factors that can raise our levels.

"Diet can have a huge impact on inflammation in the body. The range of chemical compounds, called phytochemicals, found within plants, is vast and have demonstrated pain and inflammation-reducing properties," confirmed Bartholomew. "Aim to consume a wide range of fruits and vegetables, making sure to choose fruits and vegetables from all parts of the





colour spectrum, especially berries, tomatoes, orange and yellow fruits, and dark leafy greens. This will not only make sure you are consuming the important phytochemicals but also ensure you are consuming lots of fibre, which helps to improve gut function and may help to reduce inflammation."

Melwani continued: "It's important to measure omega 3 content and antioxidant capacity in foods that would result in reducing inflammation. It is also crucial to look at the glycaemic Index of foods we consume. Glycaemic index is the blood glucose-raising potential of the carbohydrates. A more accurate indicator of the relative glycaemic response to dietary carbohydrates is glycemic load. Hyperglycaemia can cause inflammation through varying mechanisms that result in the production of free radicals and pro-inflammatory cytokines."

Dr Glenville advised: "Keep animal fat to a minimum, which provides too much of the pro-inflammatory fat, and ensure a diet rich in oily fish (tinned fish is very easy to get hold of and very rich in omega 3), avocado, turmeric, ginger, coconut oil and an abundance of brightly coloured fruit and vegetables. Avoiding refined carbohydrates and sugar is also important."

Logan identified specific factors that contribute to inflammation, including overeating, especially sugar.

"In a survey of people who live to be over 100 years of age, one of the only common factors is that they ate low-calorie diets. So, it would seem one of the key factors to maintaining good health, which means controlling the inflammatory response, is to ensure that you are not overeating. One of the key ingredients to limit is sugar. A diet which is high in simple sugars will lead to the development of visceral fat, which in turn causes an increase in inflammatory conditions due to its link with metabolic syndrome."

"In a survey of people who live to be over 100 years of age, one of the only common factors is that they ate low-calorie diets. So, it would seem one of the key factors to maintaining good health, which means controlling the inflammatory response, is to ensure that you are not overeating."

She also pointed towards environmental toxins, such as pesticides, herbicides, air pollutants, household chemicals and cleaners, food additives, flame-retardants in your furniture and perfumes.

"These toxins all have to be cleared from the body, provoking an inflammatory response. The more of them there are, the greater the amount of inflammation," she explained, before adding: "Certain foods will aggravate the inflammatory response as they increase the amount of phase 1 inflammatory messengers. For example, foods like red wine and cheese contain histamine, whilst a diet high in meat and low in oily fish will increase the production of pro-inflammatory prostaglandins."

Don't underestimate the impact of stress too.

"Researchers have found that chronic stress changes gene activity of immune cells before they enter the bloodstream so that they're ready to fight infection or trauma, even when there is no infection or trauma to fight. This then leads to increased inflammation. Learning to cope with high stress levels and learning some stress-relieving tools can drastically improve your health," Logan commented, adding: "Sleep is a cornerstone of good health as this is when your

body repairs and restores functions. Failure to get a good night's sleep each night means toxins will not be cleared effectively, damaged tissue will not get repaired quickly and free radicals won't be cleared. Without sleep your brain also does not get to process the previous days' stresses and 'empty your stress bucket' making stress and anxiety more likely."

ANTI-INFLAMMATION

In terms of the advice and recommendations that should be borne in mind, there is much that can reduce inflammation, and a lot of this relates to adherence to some simple diet and lifestyle changes.

Bartholomew suggested: "We would recommend a client follows an anti-inflammatory diet, including lots of fruits, vegetables and fibre. Consider eliminating possible inflammatory triggers, such as gluten, alcohol and processed foods too. In addition, key anti-inflammatory nutrients and a structured stress management and exercise plan are important elements to include in a protocol aimed at balancing inflammation."

Dietary wise, Dr Glenville recommended: "A client should follow a Mediterranean style diet, with bright colours, plenty of fish, nuts and seeds. Avoid refined grains like white rice, pasta and bread and increase anti-inflammatory herbs and spices, such as turmeric and ginger. Sometimes it is valuable to cut out the nightshade foods, which include potatoes, tomatoes, aubergines and peppers. This is particularly helpful for osteoarthritis and migraines. It's not just about diet and nutrition but it is very important to manage stress if this is a significant area."

Logan said identifying issues with food.

"Discover and deal with food sensitivities; exposing the body to something everyday that it reacts badly to



adds up, contributing to fatigue, pain and inflammation. An elimination diet can be very helpful in gaining some quick, symptomatic relief, as well as in identifying the best foods for the patient to cut out of their diet in the longer term," she explained.

"Eat meat a maximum four times a week – this reduces the production of pro inflammatory prostaglandins as a high meat diet has been linked to increased production of arachidonic acid. Limit intake of cheese, coffee and red wine as these foods are all high in histamine so will increase inflammation and aggravate allergic reactions."

Curcumin should be one of the key recommendations here, a compound showing huge promise in relation to inflammation.

"One of the most well-known nutrients for supporting inflammation is curcumin, the active component of the spice turmeric. Curcumin is thought to work across multiple pathways and enzymes in the body, helping to reduce pain and inflammation, but without the nasty side effects that are often associated with conventional anti-inflammatory medications," Bartololomew explained.

Thomas added: "Turmeric's active compound curcumin offers numerous health benefits including anti-inflammatory properties and a high antioxidant capacity that helps to

reduce radical damage in the body. This super spice has so many healing properties that there are more than 6,000 studies published proving its benefits and remarkably, many of its effects have been compared to those you would get from more conventional pharmaceutical medicine.

"As an inflammatory agent, it is used to combat joint pain and swelling, easing rheumatoid arthritis symptoms and healing damage from everyday sprains, strains and muscle aches. Turmeric is also known for its potent antioxidant capabilities, as well as antibacterial properties, offering customers cosmetic benefits for anti-ageing, hair loss and skin issues, such as acne and stretch marks.

"Studies have also linked turmeric's benefits with Alzheimer's disease, dementia, diabetes, depression, heart disease and inflammatory bowel disease, to name a few."

Consider the form of turmeric to get the most benefits.

"Turmeric is not water soluble and thus has very poor bioavailability (absorption and utilisation by the body), with studies demonstrating as low as one per cent absorption from the gut," Thomas said. "Regarding dietary supplements, many existing curcumin products use techniques such as adding artificial emulsifiers to improve solubility, however, these





products still rely upon absorption from the gut and the subsequent issues associated with this.

“An alternative route for administration is the intra-oral route (through the mouth). The key benefit of an oral spray is that it guarantees better absorption than tablets or capsules (which all rely upon an increasingly inefficient digestive system).”

Bartholomew also suggested: “Ginger, another popular herb, also has a long history of use, supporting a variety of acute and chronic inflammatory conditions. Omega 3s, found in rich supply in oily fish, support production of specific anti-inflammatory substances and have been studied extensively. It’s very important to ensure that you consume a balanced ratio of omega 6 and omega 3 oils in order to support a healthy inflammatory response. Unfortunately, the typical Western diet is far richer in omega 6 fatty acids than omega 3, but consuming two portions of oily fish per week and/or supplementing with a high quality omega 3 fish oil product daily can help to redress the balance.”

Antioxidants are important, with Melwani explaining: “Their capacity to counteract free radicals are remarkable. Antioxidants such as vitamin C have the ability to decrease levels of CRP and pro-inflammatory cytokines and by inhibiting the activity of protein kinase C. α -Tocopherol in vitamin E functions as a chain-breaking antioxidant, preventing the propagation of free radicals in membranes and plasma lipoproteins.”

Other nutrients to bear in mind include magnesium and vitamin B6.

“Considered the anti inflammatory mineral, magnesium is the most lacking mineral in the human diet. Several studies show that show that inflammatory markers such as CRP (C-reactive protein), TNF α (tumor necrosis factor alpha), and IL6 (interleukin 6) were all reduced when magnesium intake was higher,” Melwani

“Omega 3s, found in rich supply in oily fish, support production of specific anti-inflammatory substances and have been studied extensively. It’s very important to ensure that you consume a balanced ratio of omega 6 and omega 3 oils in order to support a healthy inflammatory response”

explained, adding: “The status of PLP (the active form of vitamin B6) is associated with higher CRP levels, which explains the role of this vitamin in anti-inflammatory processes. Several studies have also shown that low vitamin B6 uptake is connected with rheumatoid arthritis and chronic inflammatory bowel diseases, both of which hold an underlying chronic inflammatory condition.”

Melwani advised to bear in mind the power of mushrooms.

“Practitioners should be recommending clients anti-inflammatory and immuno-modulatory protocols. Adaptogens have a striking effect against chronic inflammation and autoimmunity. Medicinal mushrooms, known as biological response modifiers, are anti-inflammatory and antioxidant in nature. Reishi (*Ganoderma lucidum*) contains a powerful antioxidant called ergothioneine that helps lower inflammation. Many of the bioactive compounds found in mushrooms, such as beta-glucans compounds, exhibit significant anti-inflammatory properties capable of reducing inflammatory biomarkers such as interleukins (IL-1 β), IL-6 and IL-8,” Melwani explained.

Logan suggested celadrin, which is made from a patented complex blend of special cetylated, esterified

fatty acids.

“Celadrin works by decreasing inflammation and lubricating cell membranes throughout the body, restoring fluids that cushion bones and joints to promote flexibility and mobility,” Logan explained. “Additionally, celadrin reduces the production of the immune factor Interleukin 6 (IL6), a powerful pro-inflammatory factor that contributes to dozens of inflammatory conditions including rheumatoid arthritis. Celadrin also works by inhibiting arachidonic acid, one of the main promoters of the inflammatory cascade, by inhibiting 5-lipoxygenase (another mediator of inflammation).”

Bear in mind serrapeptase too.

“Serrapeptase reduces inflammation in three ways: Breaks down the insoluble protein products of blood coagulation known as fibrin; thins the fluids created by inflammation or injury and facilitates their drainage which speeds the tissue repair process; and inhibits the release of a specific pain inducing amine known as bradykinin, which has similar actions to that of histamine.”

Quercetin could also be built into a nutritional programme, with Logan explaining: “A key nutrient in supporting those struggling with allergic reactions, whether the irritant allergen is pollen, dust mites, UV light, heat or pet hair, the body releases histamine, resulting in itching, sneezing, wheezing and watery eyes. Quercetin stabilises the mast cells, damping down the release of histamine, thereby reducing the amount of histamine and the resulting inflammatory response. Using quercetin alongside MSM, B5 and liquorice to thin mucous and improve lung function and have complementary effects on the adrenals and liver provides an extra layer of support for those struggling with an over responsive histamine production.” ●



THE EXPERTS



RACHEL BARTHOLOMEW BA(Hons) Dip ION MBANT NTCC CNHC has practiced as a nutritional therapist since completing her study with the Institute of Optimum Nutrition in 2004. With her own busy clinical practice in Lancashire, Rachel supports clients of all ages on a wide variety of health issues. She has a particular interest in children's health and nutrition, with a keen focus on improving nutrition education at an early age. Rachel combines her clinical work with a freelance consultant role for Nutri Advanced, where she regularly produces a wide range of technical articles and newsletter items, continually researching the latest developments in nutrition.



ROSE HOLMES, Dip.ION, BSc (Hons), PGCE, mBANT, CNHC is a Registered Nutritional Therapist with a special interest in chronic illness, circadian rhythm disruption and healthy ageing. She is the Education and Training Manager at Rio Trading Company and provides training to other practitioners and health professionals on natural therapies. Rio Trading supplies and distributes brands from around the world, specialising in high quality South American botanicals and the Rio Rosa range, as well as practitioner ranges NutraMedix and Epigenar.



PROFESSOR TITO FERNANDES has an MSc in Nutrition, a Ph.D. in Agricultural Biochemistry and a Doctorate in Agrarian Sciences. He became a Doctor of Science DSc (Aggregate) in Biotechnology in 1983.

EXPERT ADVICE



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

Q It's hay fever season and many of my clients are suffering. What do you recommend as a good strategy for prevention and support of hay fever?

RACHEL BARTHOLOMEW

RECOMMENDED: Hay fever, or seasonal allergic rhinitis as it is officially known, is a common immune reaction to pollen, with typical symptoms such as sneezing, watery eyes, an itchy runny nose and even fatigue when sufferers come into contact with the allergy trigger. It is now the most common allergy in Western countries, affecting an estimated 20 per cent of the population in Britain and statistics show that it has been on the rise worldwide for the past two decades – all the more reason to be armed with effective natural strategies to support your clients.

Here are some of the strategies I've found to be most effective:

- **Plant sterols:** Best known for cholesterol balance, yet recently their immune supporting properties have come to the fore, especially for aiding the relief of hay fever symptoms.
- Improving **omega 3** balance in the

diet can have a positive effect on balancing inflammatory processes. You need to start early with omega 3 supplementation though, to notice a difference in hay fever season.

■ **Vitamin C and bioflavonoids:**

Much research has shown that select flavonoids possess anti-allergic, anti-inflammatory, anti-viral and antioxidant activities. Both vitamin C and bioflavonoids have been shown to inhibit histamine release, hence why these are key nutrients to consider for hay fever support.

■ **Quercetin** helps to support healthy histamine levels, has potent antioxidant activity and may help to potentiate the actions of vitamin C.

■ **Bromelain** supports healthy nasal and respiratory airways, may help to increase absorption of quercetin and supports balanced inflammation responses and histamine processes.

■ **CoQ10:** Although more commonly

associated with energy production and antioxidant support, CoQ10 is also involved in balancing immune function and may help to inhibit the release of histamine.

■ Many hay fever sufferers find relief from switching to a diet **low in wheat and sugar** products to support optimal immune function.

■ Thousands of people swear by the fact that **a spoonful of local honey daily**, preferably starting well before the pollen season, has transformed their lives as far as hay fever is concerned. There's no real evidence either way but for some people it really does seem to work. The principle behind it is desensitisation; the pollen that bees collect is the heavy-grained variety that doesn't cause problems and appears to work well as an effective anti-allergen.

[CLICK FOR MORE QUESTIONS](#)



Q

Can you explain the impact of pollution on the health of our skin?

ROSE HOLMES EXPLAINED: Pollution is the new threat to wellbeing. The World Health Organization has announced that pollution is the world's biggest environmental health risk.

Pollutants enter the body through skin as a primary route. It is, therefore, important to keep your skin and its barrier function as optimal as possible. Causes of skin distress include environmental factors, such as sun, wind, dirt, humidity, air pollution, pollen, smog, dryness, cold and climate change. Lifestyle also impacts skin barrier function, such as fatigue, stress, exercise, air-conditioning, central heating, alcohol, smoking, diet, lack of sleep and hectic lifestyle.

Ninety per cent of visible ageing may be caused by environmental factors, such as sun exposure and pollution. The visible signs of skin ageing are easy to identify; wrinkles, rough patches, loss of elasticity, discolouration, dark spots and dryness.

Regardless of age, urban living can have a huge impact on the skin's health and appearance. The effects of the environment from dirt and pollution, harsh weather, air conditioning and hectic lifestyles can lead to dry skin, redness, dehydration, premature ageing and a tired, dull-looking complexion. Over time, the skin's natural defence barrier can become weakened by environmental stressors, which can lead to increased sensitivity and other skin issues. For healthy, balanced and glowing skin, we need to maintain our skin's defence mechanism and keep skin hydrated.

Some pollutants can be up to 20 times smaller than human pores. For those living in polluted

areas, skin experiences dehydration, lack of oxygen, less skin cell turnover and depletion of important antioxidants. Antioxidants are the natural way to replenish your skin's defence barrier. Antioxidant-rich Chilean rosa mosqueta rosehip oil (*Rosa affinis rubiginosa*) can be taken as capsule and can be applied to skin.

Rosehip seed oil is a natural moisturiser that is proven to fade scars and stretch marks, reduce signs of ageing and nourish dry skin. Cranberry seed oil is another antioxidant-rich oil with super-absorbing and moisturising properties to protect skin from environmental stressors. Another oil rich in antioxidants is Sacha inchi, which contains vitamins C and E, as well as carotenoids to help fight against oxidative damage.

Look for antioxidant oils for the skin, especially those in combination, and particularly from organic sources as these can provide natural protection from the elements. Look also for products with no nasties, such as parabens, paraffin, petrochemicals, sulphates, synthetic fragrances, synthetic colours, PEG, TEA or DEA, and which haven't been tested on animals. Antioxidant facial oils combat the effects of air pollution, harsh weather, air conditioning and hectic lifestyles, they nourish, hydrate and enhance the health of the skin. Antioxidant facial oils provide a natural way to replenish this important skin defence, providing essential protection and repair, maintaining the skin's natural moisture barrier and restoring hydration, radiance and skin health.

[CLICK FOR MORE QUESTIONS](#)



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Q

What are the possible mechanisms in which mushroom nutrition can improve gastrointestinal discomfort?

PROFESSOR TITO FERNANDES SUGGESTED:

Besides the nutritional properties, mushrooms have attracted market attention because they are a potential source of bioactive compounds able to perform several positive functions on the health of the consumers. For example, a body of research has determined that mushroom polysaccharides may initiate prebiotic activity by stimulating the growth and/or activity of probiotic bacteria in the colon.

While most of these studies have been with extracts from *Coriolus versicolor*, a group of researchers from the School of Biotechnology in Catholic University of Porto, (Portugal), evaluated the prebiotic activity of a biomass form of *Coriolus versicolor* in in vitro gastrointestinal tract conditions (GTI).

The study determined that there was strain-dependent prebiotic effect with higher activity on the *Lactobacillus casei* L26, *Bifidobacterium animalis* B0 and some activity in *Lactobacillus acidophilus* L10. However, there was no activity in *Bifidobacterium longum* BG6.

Prebiotic agents can have an indirect inhibitory effect on pathogenic bacteria through selective fermentation by probiotic bacteria in the colon. In addition to this effect, anti-adhesive components are another potential strategy to inhibit undesirable bacteria.

The adhesion of pathogens can be inhibited through two processes; receptor analogs, which are usually carbohydrate that can mimic the epithelial receptor sites and bind to the bacterial adhesion receptors,

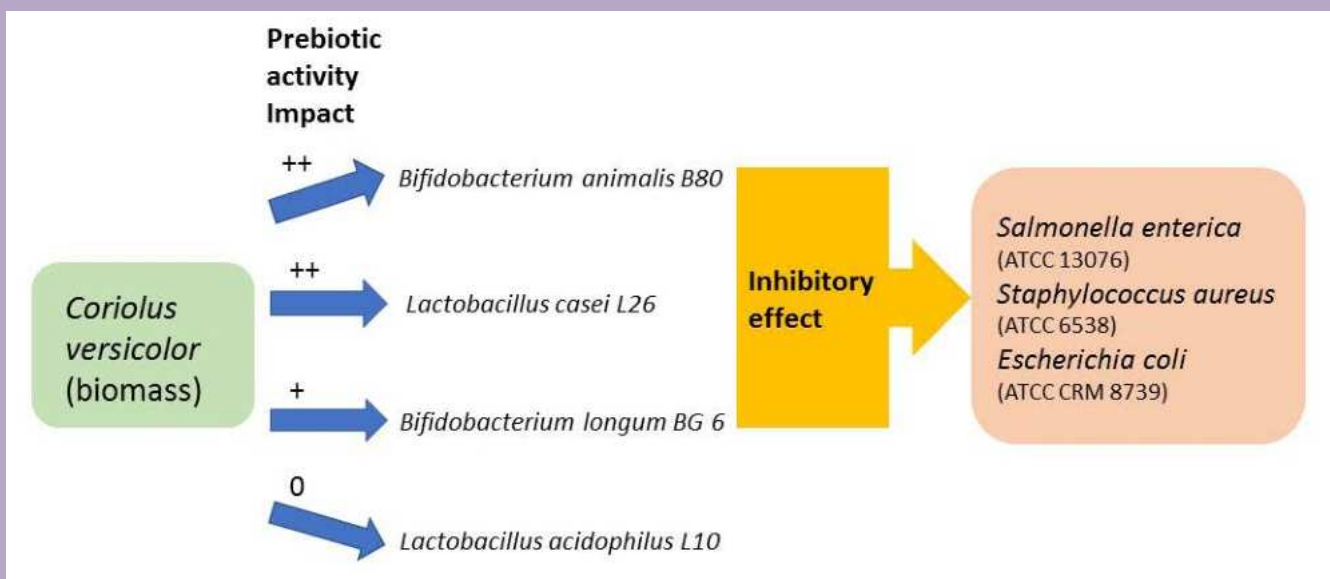


preventing the bacteria from adhering to the host cells, and adhesion analogs that bind to the host cells surface receptor, blocking the pathogens.

Mushrooms may constitute a new source of bioactive molecules with the ability to inhibit pathogen infections. The adhesion of undesirable bacteria to host tissue is the first step in pathogenesis.

The same researchers measured the effect of *Coriolus versicolor* biomass upon *Salmonella enterica* (ATCC 13076), *Staphylococcus aureus* (ATCC 6538) and *Escherichia coli* (ATCC CRM 8739) adhesion to mucin. The evaluation was in vitro using mucin (Type II Sigma-Aldrich) as a model of the intestinal mucus.

The result showed a potential inhibitory effect of the substrate, especially in the case of *Salmonella enterica*. However, additional studies are needed in mixed cultures and faecal samples in order to assess the bioactive in an environment involving complex microbiota.



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Current research shows that this enzyme can be affected by polymorphic mutations (SNPs). The most researched MTHFR polymorphism is the C677T genotype. SNPs on this gene can reduce its ability to produce methylfolate by up to 70 per cent.^x Because the role of methylation is so diverse, MTHFR polymorphism is linked to many chronic conditions, including migraines^{xi} coronary artery disease^{xii}, autism^{xiii} neural tube defects^{xiv} and some cancers^{xv, xvi}.

WHO MAY REQUIRE SUPPLEMENTATION?

Unless you've done a genetic test, it may be difficult to determine if someone has MTHFR polymorphism or not. However, there are several signs and symptoms you may want to look out for, which could indicate the need to support methylation.

I would definitely recommend looking out for any neurotransmitter imbalances, such as those associated with anxiety or depression, as well as cardiovascular problems, high homocysteine levels, infertility, ADHD, autism, neurological conditions, autoimmunity and sex hormone imbalances (for example, endometriosis and PMS). In addition, people with high stress levels, inflammation or high toxic load may have higher requirements for methyl donors, such as methylfolate.

CHOOSING THE RIGHT SUPPLEMENT

Unlike folic acid, methylfolate does not need to go through any enzymatic conversions and therefore is readily available to the body. There are two main forms of 5-MTHF which can be supplemented; Metafolin (calcium salt) and Quatrefolic (glucosamine salt). Quatrefolic is known to be more stable and more bioavailable in contrast to the calcium salt form. It is, therefore, better if using liquid forms or combining it with other nutrients.

It is also important to be aware that we need to use less Quatrefolic than other forms of folate due to its enhanced bioavailability. Preliminary animal research indicates that it can produce a peak plasma level 1.8x higher than Metafolin and 3.1x higher than folic acid supplementation.^{xvii} Using liquid forms is

particularly useful if we need to vary the dose or when supporting people with compromised digestion.

CONCLUSION

Methylfolate supplementation offers a novel way of optimising one's health and improving general wellbeing. Knowing what to look out for to spot potential methylation imbalances, as well as when to test or how to supplement appropriately, gives us an extra tool that can significantly improve health outcomes of our clients. We don't necessarily have to know someone's polymorphisms to supplement with methylfolate.

As the best available and most bio-active form of folate, it is certainly the best solution for everyone. However exciting the opportunity to overcome our genetic issues may seem, we must not forget the importance of dietary and environmental factors. Although MTHFR is a crucial enzyme, it is only one amongst hundred others. Genes exist in a complex and incredibly dynamic system of gene-gene and gene-environment interactions and therefore we still need to focus on dietary recommendations and reduction of environmental stresses to have a more profound and positive effect on the body and the genome as a whole. ●



Marta Anhelush Nutritional Therapist DipCNM, mBANT, CNHC is a Nutritional Therapist working for BioCare in the Clinical Nutrition Department, while practising and being a mum to a five-year-old son. Through personal experiences, Marta has embarked on a path of nutrition and has never looked back.

Being able to help people lead better and healthier lives has motivated her to grow as a person and a therapist. Since graduating from the College of Naturopathic Medicine, Marta has continued to research and has developed particular interest in Autoimmunity, Endocrinology and Nutrigenomics.



I-Mag giveaways

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



LEPICOL LIGHTER

Lepicol Lighter is a new and scientifically developed natural food supplement, which could assist your clients' weight loss journey, containing glucomannan to help them feel fuller for longer, chromium to help balance their sugar levels and seven strains of live bacteria to keep their gut healthy, beneficial when trying to lose weight.

🎁 **I-Win:** We've got three packs to give away, each with a handy compact mirror.

OMEGA 7 SBA24

Omega 7 SBA24 is the original sea buckthorn oil product and the formulation used in all clinical trials. With the complete fatty acids family naturally found in the sea buckthorn berries, it offers quick relief to all problems associated to dryness in the body, from dry eyes, to intimate dryness and dry mouth.

🎁 **I-Win:** We have five packs to give away.

HIFAS DA TERRA BIO GANODERMA

If you only do one thing this week, glow with this summer supplement, Bio Ganoderma, from Hifas da Terra. We all know that getting enough antioxidants will help improve the condition of our skin. Anti-inflammatory reishi is the perfect mushroom to make sure you skin is glowing from the inside out. Certified organic and worth more than £25.

🎁 **I-Win:** We have four packs to give away.

CHOCOLATE CHERRY UNIBAR

Developed by Dr Peter D'Adamo, author of *Eat Right 4 Your Type*, the Chocolate Cherry Unibar is nutritious, pocket-sized snack suitable for all blood types (including secretor and nonsecretor). This wheat- and gluten-free bar is kosher and is a delicious bar to enjoy when you need a burst of energy between meals or as a healthy and quick meal replacement. The Chocolate Cherry Unibar contains 15g of protein so it metabolises slowly and has a satisfying chocolate taste that any chocolate lover will crave.

🎁 **I-Win:** We 25 Unibars to give away.

BETTERYOU TURMERIC ORAL SPRAY

Harnessing the science of molecular encapsulation, BetterYou's Turmeric Oral Spray guarantees superior absorption than tablets through its unique delivery mechanism, which bypasses the digestive system (a well-documented absorption issue for curcumin). The most bioavailable on the market, this pioneering formulation ensures a greater uptake of the three active curcuminoids, with growing evidence of numerous health benefits, including immune enhancement and cartilage formation. Using natural ingredients, this orange flavoured formulation is suitable for vegetarians.

🎁 **I-Win:** We have one spray to give away, worth £17.95.

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wellbeing EXPERTS

With an educational approach to wellness and weight loss, **SWAMI** offers practitioners a new method for their clients.

Weight loss has become one of the faddiest sectors of the health industry, with all manner of diets now on the market, proving to be unsustainable and unhealthy.

This is where SWAMI weight and wellness workshops (SWAMI WWW) differs.

The concept is very different to other diet programs, designed to offer workshops that provide education on two levels and cover both blood type and epigenetics.

SWAMI's Wendy Richards explained: "Trained health professionals run the workshops. Members can either follow their blood type diet or go one step further and have a SWAMI personalised program. The initial workshops run for 12-week sessions and each session is structured toward helping members understand various aspects of their health and how to achieve their weight and wellness goals. There is also a social element – once the 12-week session is complete, members are free to join a second group, where they will socialise and exchange ideas and results."

BLOOD TYPE APPROACH

So, what is the philosophy behind the SWAMI programme? And what makes it unique?

"The weight loss market is a multi-billion-dollar industry, and yet it has been unsuccessful in uncovering the secret to the 'battle of the bulge'. Permanent weight loss and genuine, lasting health comes from considering how your body interacts with the foods

and beverages you consume," Wendy explained.

"Dr Peter D'Adamo's pioneering and ongoing research confirms that your blood type is the single most important determinant in choosing which foods are right for you and which foods cause inflammation, digestive problems, or weight gain. Following your specific Blood Type diet, GenoType diet or SWAMI protocol is the first step in developing a healthy relationship with food and eliminating any imbalances in your body that lead to weight gain."

What SWAMI really focuses on is taking nutrition and wellbeing to a higher level than most other conventional 'diet' plans.

Wendy explained: "Using personal information, such as your health history, biometric markers, fingerprints and even your genetic make-up, SWAMI then performs over 12 million calculations to determine a nutritional program that is completely unique to an individual. It provides the most innovative, science-led genetic and lifestyle analysis, ensuring the individual receives a personalised solution that is unique to them.

"In fact, the nutritional plan you get from SWAMI is so unique to the individual's needs that the chances of another person having the same nutritional plan is less than one in a million."

PERSONALISED NUTRITION

It is this personalised approach that SWAMI believes makes a big difference to their success.

"We can tell a lot about a person's metabolism and health tendencies based on leg length, fingerprints, and other apparently

**SO
WHAT
AM
I?**

random measurements. Many things in the prenatal environment can cause a health tendency and a measurable difference in the body, because they developed around the same time," Wendy added.

"Various measurements are used in SWAMI. Fingerprints develop between six and 21 weeks of gestation, so fingerprint patterns reflect the prenatal environment for that whole time. We all start out with genes from our parents, which is genetics. But that's only half the story. How those genes react to our environment is known as epigenetics. For example, you may have inherited a tendency for diabetes or heart disease, but these genes can be 'turned on' or 'silenced'. By the time you're born, a lot of these patterns have been set.

"Your cells are constantly replicating, and each time they do, the basic genetic pattern is copied exactly. But which genes are 'turned on' and which ones are 'silenced' can change each time a cell is copied. That means that your diet, exercise, and stress levels can change long-standing patterns."

Within the business, there is an impressive amount of expertise,





which has helped to build the programme.

The groups are overseen by Wendy, who has 25 years' experience in the nutrition industry and trained, along with many other health practitioners and medical doctors, with Dr D'Adamo, who is best known for his research on human blood groups and nutrition and a respected researcher and formulator in the field of natural products. His groundbreaking research into the science of individuality continues with the SWAMI Genotype diet, and Wendy has used his protocols as a backbone to the way in which she treated her clients with immense success and is passionate about educating people to understand that we are all biological individuals.

SUPPLEMENT SUPPORT

In addition to the programme, a range of nutritional supplements have been developed.

"North American Pharmacal, Inc. is the only company dedicated to providing nutritional support and guidance for individuals who follow the Blood Type and GenoType diets. Under the guidance of the Chief Scientific Advisor, Dr Peter D'Adamo, naturopathic physician, researcher, and author of the internationally best-selling, *Eat Right 4 Your Type*, D'Adamo supplements have been formulated for and tested in clinical settings to ensure reliability and efficacy," Wendy explained.

With a commitment to quality and excellence in raw ingredient sourcing, they offer unique formulations and manufacturing processes.

"Just as foods have the power to heal or harm your body depending on your blood type, so do vitamins and nutritional supplements. Dr D'Adamo's innovative support formulas were developed to specifically address the unique nutritional needs of each blood type. Through targeted nutrition, each product has been carefully designed to deliver key nutrients, in the right doses, to optimise health and wellness," Wendy pointed out.

THE SPECIFICS

Wendy set out a more detailed explanation as to how the programme works.

■ **"Weight loss:** SWAMI identifies the foods that are right for you to



obtain optimal weight based on your biology.

■ **Digestive health:** Your physiological and medical history means that certain foods may be better than others when it comes to digestive health. SWAMI determines what these foods are so you can benefit.

■ **Hormonal balance:** Food can have an enormous impact on how we feel and how our hormones are balanced. With SWAMI, you'll know which foods are right for you, helping you stay upbeat and focused.

■ **Medical conditions:** If you have any kind of medical condition, it's important to eat foods that help you to stay healthy and in control. Whether it's keeping on top of your blood sugar or trying to improve blood pressure, SWAMI can help."

For clients that take part in the programme, members will receive a SWAMI profile, and will have a personalised 50-page book with food lists, exercise profile and a menu planner, with recipes based on their blood type, genotype and epigenetics.

But how can Nutritional Therapists get involved in the programme? And why are practitioners of this type important to the company?

"Nutrigenomics is concerned with the effects of our individual genetic variations in response to our diet, exercise, and lifestyle, all of which can cause the genes to be 'expressed' in a positive or negative way," Wendy explained.

"It is extremely important that we have trained professionals who can combine their current knowledge with our training on blood type and epigenetics and then use their consultation and coaching skills to help the group members to make the necessary changes in their daily lives. SWAMI blends the genes results with the clinical assessments to provide a much clearer picture of a person's health. It's a blueprint for practitioners to make recommendations for lifestyle, nutrition, and exercise, in order to address everyone's challenges," she explained.

"The therapists have training on the principles and application of the Blood Type Diet and training on how to create the SWAMi profiles. We also provide a structured 12-week workshop programme for the workshops and a complete administrative back-up for running the clients on the programme. In addition, we give online support marketing materials and a website directory." ●

CPD DIRECTORY

If you want to top up your CPD points, take inspiration from these forthcoming events.

Nutritional Support for Endurance Athletes

Solgar
Online

CPD hours: BANT one hour

Speakers: Paul Chamberlain

Website: attendee.gotowebinar.com/recording/2084837151952608513

Clinical Implications of Vitamin D Deficiency

Solgar
Online

CPD hours: BANT one hour

Speakers: David Crooks DipION, Laura Stirling

Website: attendee.gotowebinar.com/register/1505168021930718721

Women and Hormones

Clinical Education (formerly Nutri-Link)

May 6 – London

CPD hours: BANT six hours

Speakers: Bethany Hayes MD FACOG

Cost: £156, £140.40 students (limited places available)

Cancer – Nutrition Support (three day course)

ION
May 23 – Richmond

CPD hours: BANT 15 hours

Speakers: Dr Marie Polley BSc (Hons) PHD, PGCHE, Carole Granger BSc (Hons) MSc, MSB, CBiol, NTCC, MBANT

Cost: Route one (BANT certification), practitioners and scientists £600, students £450 throughout (students must show ID on the day). Rour two (NTEC certification), practitioners and scientists £675, students £525 throughout (students must show ID on the day)

Website: www.ion.ac.uk/upcoming-events

Upcoming IHCAN Conferences

Integrative Healthcare and Applied Nutrition
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Forthcoming webinars

Target Publishing, which publishes *Nutrition I-Mag*, is hosting a series of webinars for practitioners. Register at www.ihcanconferences.co.uk/webinar

Developing a Healthy Gut Flora in Children

Protexin
health care ●●●

Presented by Claire Barnes, BA (hons), DipNT, mBANT, CNHC
Tuesday, May 9, 6.30pm-7.30pm

In this webinar, we'll look at how the gut flora develops from infancy to childhood, and how environment appears to have a strong effect.

An altered gut flora in children appears to affect immune balance and could possibly lead to later immune conditions such as allergies, asthma and auto-immunity developing. Studies have also made strong links between conditions, such as autism and the gut flora. We're further seeing an increase in obesity develop in children and an increased risk for type 2 diabetes and cardiovascular conditions – could the gut flora have a role to play here?

How can we address dysbiosis in children and is there evidence that by improving the gut flora, we can reduce the severity of these conditions?

Nutrition tips for hormone balance throughout the different ages of womanhood

Cleanmarine
Krill Oil

Presented by Susie Perry Debice
Tuesday, May 23, 6.30pm-7.30pm

Susie Perry Debice has over 18 years experience helping women of all ages achieve a better understanding of their hormonal symptoms and patterns. During this webinar, Susie shares her expert nutrition knowledge, giving an overview of the four hormone patterns of PMS, highlighting the typical symptoms and nutrient imbalances for each of these sub-groups. Susie will also review the hormonal changes that impact on metabolism and create changes in body shape, energy levels and mood as women approach the peri-menopause and travel through the menopause.

Susie will also suggest diet, lifestyle and supplement strategies that she has found to be effective throughout her years of clinical practice for both PMS and the menopause. This workshop will also explore the role that krill oil plays in hormone balance for all ages and phases of womanhood.

Forthcoming webinars...

Plant proteins for optimum health – the evidence and the practice



Presented by
Vanessa Clarkson
RD, RNutr
Tuesday, June 6,
6.30pm-7.30pm
During this webinar,
Vanessa Clarkson

reviews the evidence to support the inclusion of plant proteins into diets for good health and provides practical ideas for plant-based eating that nutrition advisors can use with their clients:

- Overall nutritional package provided by plant protein sources.
- Quantity and quality of plant protein sources versus animal sources.
- Anti-nutrients, such as phytates and their effect on nutrient uptake.
- Plant protein sources and health: Weight management, heart disease, cancer, bone health, and muscle protein synthesis.
- Breaking down barriers and motivating consumers to switch to eat more plants.



Organised by the
IHCAN Conference Team

Upcoming IHCAN Conferences



Autoimmunity

May 6, 2017

Cavendish Conference Centre, London
4.5 CPD hours (pending)



On Saturday 6 May, the Cavendish Conference Centre, in London will play host to the first of two IHCAN

Conferences in May. Gluten expert, Tom O'Bryan, will join us as keynote speaker at the conference, presenting 'Fire in the Hole: Intestinal Permeability, The Development of Autoimmune Disease, and a Comprehensive Approach to Healing the Gut'.

Speaking ahead of his presentation, he said: "The volume of information now of the underlying mechanisms that set the stage and contribute to the development of autoimmune disease is overwhelming."

Tom, who is considered the 'Sherlock Holmes for chronic disease and metabolic disorders', will be joined by Catalina Fernández de Ana Portela, a biologist expert in Mycology. Catalina will discuss 'Reversing Autoimmunity Through Mycotherapy: The Use of Medicinal Mushrooms in Inflammation'.

Functional Sports Nutrition

May 20, 2017

Cavendish Conference Centre,
London
5 CPD hours (pending)



The first ever IHCAN Conference to focus on Functional Sports Nutrition

takes place on Saturday May 20, welcoming four expert speakers to the stage.

Pete Williams, an internationally recognised thought leader in applying the Functional Medicine model to health and fitness, will discuss 'A marathon-induced cytokine depression'. In his synopsis, he says: "A functional medicine approach relies on its ability to seek a robust timeline of events that may lead to answers to a patient's illness. Identifying antecedents, triggers and mediators is a key component to resolving and understanding your patient."

Pete will be joined by Alessandro Ferretti, who will present 'Why

metabolic preferences cannot be standardised in athletes'. Alessandro will go through some of his successes and failures to highlight a potential personalised approach of investigation, sharing scientific papers he has been involved with, and his clinical research data and their applications.

Our first keynote speaker of the day is Medical Doctor and former elite triathlete, Dr Tamsin Lewis, who will present 'Tribulation to Triumph: Learnings and Practical Application from the journey of a professional athlete and Medical Doctor'. Dr Lewis will take a deep dive into athlete case histories, showing how diagnostic testing can detect and help dictate treatment.

The final speaker of the day, Laurent Bannock, DProf(c), MSc, FISSN, CSCS, SENr, will then give his keynote presentation, 'Science to Practice – toward an epistemology of expert practice in performance nutrition'. Drawing upon Laurent's doctoral research, and utilising real-world exemplars from daily practice in performance nutrition and exercise physiology, delegates will be taken on a journey from science to practice.

THE UNMISSABLE & CONFERENCE EXHIBITION

Featuring



William J. Walsh, PHD, FACN



Jeanette Hyde



Dr Khalid Khan



Dr Malcolm Kendrick



£20 discount for I-Mag readers

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IHCAN 2017 summit

10 June 2017, London

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- ▶ Free smoothie upon arrival
- ▶ Free goody bag
- ▶ A free sample box of nutritional goodies from The Natural Dispensary



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Tickets cost only £65 (inc.VAT) for Nutrition I-Mag readers. Book online at www.ihcansummit.co.uk or telephone 01279 810080.

SOOTHE A SENSITIVE GUT

Simple low FODMAP recipes to ease symptoms of poor gut health.



Nut and seed balls



Summer salad in a jar



Lemon and lime mini cheesecakes



Nut and seed balls (Makes 20 balls)

These are particularly moreish, but only two or three per sitting is recommended. Nuts and seeds are a trendy, nutritious snack. They are great sources of essential fats, fibre and protein. If you decide to choose almonds or hazelnuts, remember that only 10 of either nut is recommended at any one sitting.

Preparation time: 20 minutes

Cooking time: 1 hour in the freezer

INGREDIENTS:

- 100g low FODMAP mixed nuts (for example, walnuts, Brazil nuts, pecans, macadamias)
- 100g mixed seeds (for example, sunflower, pumpkin, sesame)
- 40g oats
- 10g Greek yoghurt
- 2tbsp maple syrup
- 1tsp ground cinnamon
- 1tsp vanilla extract
- 1tbsp dessicated coconut, for rolling

METHOD:

- 1 Put the nuts and seeds in a food processor and blend until coarse. Add the oats and blend again. Add the yogurt, maple syrup, cinnamon and vanilla extract and blend thoroughly. The mixture should combine to form balls easily.
- 2 Roll the mixture into balls approximately the size of a walnut.
- 3 Spread the dessicated coconut on a flat plate and roll the balls in it to cover them. Place in the freezer for one hour before eating.
- 4 These can be eaten frozen or stored in the fridge for up to four days.

**Summer salad
in a jar**



**Lemon and lime mini
cheesecakes**





Summer salad in a jar

This is an attractive and fun way to carry your lunch to work or college. Start by getting yourself one or two glass jars with airtight lids. Make sure they are dry and clean. The idea is to layer your ingredients to build colourful concoctions of your favourite salad ingredients. There are no rules – just make sure everything is a low FODMAP food suitable for Stage 1. Anything goes, but here are some tips that might help. You can eat your salad directly out of the jar or toss it into a bowl. The dressing and toppings simply land dutifully on top of your salad leaves or greens. If you're going to savour your salad straight from the jar, you might have to eat a few mouthfuls of greens first, then shake the jar to mix it well. Don't forget to pack a fork if you're on the move.

INGREDIENTS:

- 2tbsp chilli lime dressing
- Halved cherry tomatoes
- Chopped yellow peppers
- Cooked brown or wild rice
- Small cubes of halloumi (max 50g)
- Green parts of spring onions and fresh coriander leaves, mixed with shredded Romaine lettuce

METHOD:

- 1 Put your dressing at the bottom of the jar and greens at the very top. This ensures your greens stay crisp and fresh by the time you get to them.
- 2 With the dressing on the bottom, start by layering up vegetables such as chopped tomatoes and sliced courgettes, radishes and cucumbers.
- 3 Then add your protein (cheese, tofu, chicken, cold roast beef, egg).
- 4 Next, add drier veggies, like carrots.
- 5 Then add your greens, like spinach leaves or mixed lettuce leaves, and the items you want to stay crunchy on top (toasted seeds and nuts).
- 6 Really stuff the jar full. This helps to stop the layers from shifting and moving around, especially if the jar tips on one side in your bag.
- 7 Store in the fridge if possible until you're ready to eat.
- 8 Then all you do is shake it all about!

Lemon and lime mini cheesecakes



Nut and seed balls





Lemon and lime mini cheesecakes (Makes 12)

You can use almond flour or ground almonds to make the cheesecake crust (recommended serving is <24g per portion). You are safe if you keep to one mini cheesecake per sitting – the reason why these are pre-portioned!

Preparation time: 20 minutes

Cooking time: 30 minutes

INGREDIENTS:

For the base:

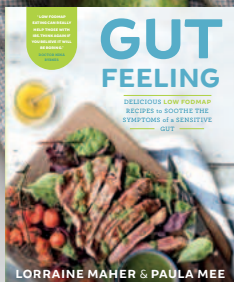
- 60g butter, diced
- 60g/about 6 oatcakes
- 60g almond flour or ground almonds
- 20g/12 macadamia nuts
- 2tbsp maple syrup

For the filling:

- 200g lactose free cream cheese
- 50g caster sugar
- 1tsp vanilla extract
- 2 medium eggs
- Zest and juice of 1 lemon
- Zest and juice of 1 lime

METHOD:

- 1 Preheat the oven to 150°C. Lightly grease 2 x 6-hole silicone muffin trays.
- 2 To make the base, blend the butter, oatcakes, almond flour, nuts and maple syrup until well combined. Divide between the muffin trays and press down with a shot glass until the base is flat.
- 3 Bake in the oven for 10 minutes, then cool on a wire rack.
- 4 Meanwhile, make the cheesecake filling by blending the cream cheese, sugar and vanilla extract until smooth. Add the eggs and blend again.
- 5 Squeeze the lemon and lime juice into the cheesecake filling, followed by the lemon and lime zest. Gently mix together.
- 6 Spoon the filling onto the bases. You can tap the tray gently on the worktop to get a more even surface and get rid of any air bubbles.
- 7 Bake for 15-20 minutes, until the filling has set. Cool on a wire rack for one to two hours before serving or chill in the fridge to make them cool faster if you just can't wait!



Gut Feeling: Delicious low FODMAP recipes to soothe the symptoms of a sensitive gut is written by dieticians Paula Mee and Lorraine Maher. Published by Gill Books, it can be ordered at www.gillbooks.ie/cookery/cookery/gut-feeling

Nut and seed balls



Summer salad in a jar



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