



## CHANGING TIMES

The role of nutrition in effective menopause management

## PROBIOTICS – AN EXPERT GUIDE

The latest developments in the field of this important area

## SUPER HEALTH ADVICE

When superfoods could become part of a health management plan



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## Welcome



hat a year of educational excellence it has been as we bring the 2018 series of IHCAN Conferences to a close; sold out events and great feedback has made for an exciting round of conferences, and this just reaffirms the importance of providing learning opportunities in an environment that enables you as practitioners to expand your knowledge base, while networking.

This magazine is all about education, about supporting the next generation of Nutritional Therapists and there are a number of ways that we do that. First, by reading this magazine, you can earn yourself CPD points (click here to find out how), and secondly, as a registered student, you can also enjoy discounted delegate rates to the IHCAN Conferences.

But most importantly, we are proud to have established strong links with all the leading colleges providing nutritional training in the UK and Ireland, which distribute this magazine for us, and as part of that, we want to give back and provide students with opportunities to build their skills. And so, each year, we run the *Nutrition I-Mag* Mentoring Scheme, designed to give a student with an interest in writing the chance to have their work published, while developing their skills. This issue, we're delighted to feature the work of Ginevra Davis, whose focus on the menopause can be found **here**. And if you're interested in finding out more about how you can get involved in the scheme next year, email rachel.symonds@targetpublishing.com

And this brings me neatly onto 2019 and the ever-exciting educational offering provided by the IHCAN Conferences. We are delighted to be able to reveal the confirmed dates for the series of events next year, which you can read by clicking here. Plans are already being put in place for an expert line-up of speakers, across a broad category of themes, so do keep an eye out at www.ihcanconferences.co.uk, where details will be announced in the coming weeks.



RACHEL SYMONDS, EDITOR

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Nutrition I-mag is provided for professional education and debate

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NUTRITION I-MAG, Target Publishing Limited, The Old Dairy, Hudsons Farm, Fieldgate Lane, Ugley Green, Bishops Stortford CM22 6HJ t: 01279 816300 e: info@targetpublishing.com www.nutritionimag.com

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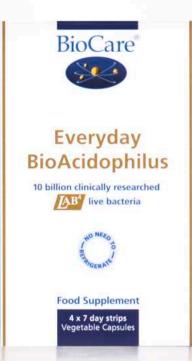
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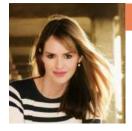






## **OUR CONTRIBUTORS**

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



### Ginevra Davis

Ginevra Davis is a qualified nutritional coach and freelance writer in the final year of her Nutritional Science BSc at the Centre of Nutrition and Lifestyle Medicine. She writes professionally online for a range of publications, as well as posting recipes and lifestyle tips on her Radiant Health Nutrition blog. She has a specialist interest in children's health and nutrition and is the subject of this year's *Nutrition I-Mag* Mentoring Scheme.



### Rose Holmes

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 Health and provides training to other practitioners and health professionals on natural therapies.



Benjamin I. Brown

Benjamin I. Brown ND is a naturopath, science writer and speaker. He is the author of *The Digestive Health Solution*, teaches nutritional medicine and speaks internationally, as well as contributing regularly to industry magazines and scientific journals.



## Greg Weatherhead

Greg Weatherhead studied Nutrition at the University of Leeds before starting his career in the VMS industry, during which time he has worked both in manufacturing and for end brands. Greg has extensive experience in the development of innovative NPD, as well as the management and design of nutritional clinical trials and PhDs. He is Nutritional Expert and NPD Manager at BetterYou.



### Raihane Palagi

Raihane Palagi BA, DipCNM, mBANT, CNHC qualified as a Nutritional Therapist from the College of Naturopathic Medicine. She currently works as a Clinical Nutrition Advisor at BioCare and has a private clinic in Birmingham. After overcoming extreme fatigue and IBS through dietary and lifestyle changes, her passion lies in educating her clients, helping them understand their body better and empowering them to achieve optimal health.



### Ioe Welstead

Joe Welstead is an ex-professional swimmer and finalist of the 2014 Commonwealth Games for Team Scotland. He is co-founder of Motion Nutrition, launched in London in 2016, which specialises in organic sports nutrition products.



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## News bites

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

## BNF unveils calorie concept in a bid to educate the nation on balanced diet

he British Nutrition Foundation has devised a new concept in a bid to refocus attention on quality of calories eaten and help people achieve a balanced and nutritionally rich diet.

The Quality Calorie (QC) has been developed by the nutrition science team at the BNF, and is said to provide a fresh approach to food choice and encourage people to not just look at the number of calories consumed, but also the quality of the diet to get enough nutrients and limit the amount of those that are of concern (free sugars, salt and saturated fat).

By placing a focus on the nutritional quality of food and drink, the BNF explains, the QC concept aims to change the approach to healthy eating.

Ayela Spiro, Nutrition Science Manager at the British Nutrition Foundation, explained: "We know that as a nation, we are consuming too many calories. In order to help battle the obesity crisis, it is, of course, important to be aware of the calories we eat and drink, but we also need to be mindful of the nutritional quality. We need to think about both the quantity and quality of calories, which is why we have combined both in the QC concept. We would like people to look to make better choices and think 'how can I QC this?' or 'has this been OC'd?'."

The main goal is to encourage people to not simply see calories as a number.

"If we only think about calories as numbers then we might choose to avoid foods that are relatively high in calories but also have a high nutritional value like nuts and seeds, oily fish and olive or rapeseed oil – all of which are included as part of healthy dietary patterns," Spiro explained.

As part of the concept, the BNF has created a free QC concept resource, which outlines the approach and gives examples of everyday meals, snacks, drinks and how they can be QC'd to increase nutritional value, while maintaining, or in some cases, reducing, the number of calories.



## Three decades of acupuncture celebrated by college



yearly on its Nutrition Masters course. It also offers online Masters courses for complementary healthcare practitioners from across the world.

Nationally and internationally renowned, the NCA boasts

The Northern College of Acupuncture is marking 30 years since it was founded.

Based in York, the organisation celebrated the milestone with a special day-long event recently with more than 150 current and former students from across the UK, as well as teaching staff and guest speakers. There was also an awards ceremony that honoured – among others – the College's Acupuncture Hero and its Founders Award.

Founded in 1988, the NCA trains more than 35 students annually to become qualified acupuncturists and also teaches 25 students

a series of firsts, including being the first UK teaching institution to offer a university degree in acupuncture and the first to achieve professional accreditation for its Acupuncture, Chinese Herbal Medicine and Nutritional Therapy courses.

College Principal, Richard Blackwell, commented: "Since our start in 1988, we have graduated around 800 students on our degree and postgraduate courses and our graduates, with their high level of training, are making a difference to people's health and well-being all over the UK and beyond."







## Awareness around malnutrition in older people revealed as half believe weight loss is normal

New research has revealed that nearly half of British adults mistakenly believe that losing weight is a natural part of ageing.

The research was revealed as part of the launch of the first ever UK Malnutrition Awareness Week, which took place in October, and was designed to abolish people, with the research aiming to show ageing, unintended weight loss can actually be a sign of malnutrition

The research also showed that people may not know how to help themselves or others take steps to avoid becoming malnourished or dehydrated; four in 10 adults wrongly believe that high calorie foods, such as biscuits and cakes, should always be avoided, even if you are underweight, and nearly 60 per cent of British adults mistakenly believe that coffee is mainly dehydrating.

One in 10 people aged over 65 in the UK (1.3m) are malnourished or at risk of becoming malnourished, and over 90 per cent are living at home. More than a third (35 per cent) of people admitted to care homes and one third of older people admitted to hospital are identified as at risk of malnutrition.

Dr Simon Gabe, President of BAPEN, which hosted the event, explained: "Too many older people are being admitted to hospital either already malnourished or at risk of malnutrition. The survey results show that there is work to do with the public to alert them to the warning signs and to eradicate myths about food and drink, but we are also

calling on frontline health and social care professionals to spot people at risk, actively screen using the Malnutrition Universal Screening Tool, and to encourage people to complete online self-screening."

The campaign coincides with BAPEN's Nutritional Care Tool's fourth 2018 Data Collection Week. Its web-based Nutritional Care Tool enables organisations to monitor nutritional screening, the effectiveness of nutritional care they provide and patient

In other news relating to the campaign, the University of Hertfordshire launched a new educational board game to help people learn more about the causes of malnutrition in older people and the actions they can take to help prevent and manage it.

The Food in Later Life Game was developed

by researchers from the university's Centre for Research in Public Health and Community Care (CRIPACC) in a bid to create a fun, interactive way to engage with findings from their research into food and older people, which was funded by the Food Standards Agency and the Economic and Social

The game, co-produced with Focus Games, an educational board

the challenges faced by older people when buying, cooking or eating food. It also helps them to discuss what individuals and organisations can do to ensure older people have access to a safe and nutritious diet and are able to continue to enjoy food in later life. The game has also been designed so that it can be used by supermarkets to help train staff to understand how a few changes in their approach could make it easier for older people to access food. It is also intended to be used by people working in numerous professions, including social care staff working in the community, healthcare staff including community, mental health and practice nurses, and people working in the



## Holistic care service launched by integrative centre

A centre for integrative medicine has developed what it calls a new Holistic Doctor Service.

The National Centre for Integrative Medicine (NCIM) has created the service to provide a dedicated hour to each patient with a qualified medical doctor, which, it says, is putting patients back in charge of their own health.

The Holistic Doctor Service is designed for patients with long-term or chronic conditions and those who feel that there is something lacking in their healthcare provision. Making wellbeing a priority, the Holistic Doctor Service offers patients a fuller and deeper picture of their health, with advice on conventional, holistic, and lifestyle approaches to healthcare.

CEO and Lead Clinician, Dr Elizabeth Thompson, explained: "Everyone at some point in their lives finds themselves wanting quality time with a healthcare professional to explore their health and wellbeing but this is rarely an option in an overstretched NHS, where GPs are dedicated to their patients but time poor. Our Holistic Doctor Service fills a genuine need and empowers our patients to co-create their own healthcare plan, rather than be dictated to by time or the limitations of a pharmaceutical approach."

NCIM, formerly the Portland Centre for Integrative Medicine, adds that its Holistic Doctor Service delivers a joined-up approach with access to a growing team of experts in nutrition, meditation, acupuncture and other complementary therapies.



# Research Research

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

## Vitamin D analysis over lack of benefit on bone health is criticised

review suggesting there is no evidence to justify taking vitamin D supplements for bone health, except for those at high risk of certain rare conditions, has attracted criticism.

Researchers from the University of Auckland, and writing in *The Lancet*, set out to determine the effect of vitamin D supplementation on fractures, falls, and bone density, and carried out a systematic review, random-effects meta-analysis, and trial sequential analysis. They used 81 randomised controlled trials that reported fracture or bone mineral density.

The researchers reported that in pooled analyses, vitamin D had no effect on total fractures, hip fracture or falls. They reported that results were similar in randomised controlled trials of high-dose versus low-dose vitamin D and in subgroup analyses of randomised controlled trials using doses greater than 800 IU per day. In pooled analyses, there were no clinically relevant betweengroup differences in bone mineral density at any site.

The researchers concluded: "Our findings suggest that vitamin D supplementation does not prevent fractures or falls, or have clinically meaningful effects on bone mineral density. There were no

differences between the effects of higher and lower doses of vitamin D. There is little justification to use vitamin D supplements to maintain or improve musculoskeletal health. This conclusion should be reflected in clinical guidelines."

However, the study has attracted criticism, with warnings on how it should be interpreted, and limitations in the study being highlighted, which include the fact that only four trials were undertaken in subjects with a deficiency in vitamin D.

It is believed that the broad range of studies confused the conclusions, with the review combining studies of high and low dose vitamin D, and those exploring vitamin D in people with adequate calcium intake, as well as those without.

Greg Weatherhead, Nutritional Expert and NPD Manager at BetterYou, commented: "The recent meta-analysis assessing the randomised controlled trials (RCTs) conducted on vitamin D supplementation for bone health is a comprehensive review and the results have been interpreted as conclusive. However, It is well established in the scientific and medical community that vitamin D is required for the proper formation and maintenance of healthy bone mineral density, with a lack of vitamin D leading to rickets in children and osteomalacia

(bone softening) in adults. These deficiencies are treated by supplementing vitamin D. Consequently, the utility of vitamin D for bone health is not in question.

"So, one of the main issues is adequately controlling the study. RCTs work well for approving pharmaceutical preparations where there is no risk of consuming the ingredient in day-to-day life. However, for vitamins and minerals and especially for vitamin D, these are relatively ubiquitous in our day-to-day life and for vitamin D specifically it can be obtained by simply being outside in the sun. As such, it becomes very difficult to have an adequately controlled placebo arm of the trial which risks negating any real benefits which may be obtained.

"Secondly, our bodies do not just require vitamin D for bone health, but a range of different nutrients which work in synergy with each other's, including vitamin K2, calcium and magnesium. Therefore, it is not surprising that an isolated nutrient taken over short period of time (typically less than three months) does not have a marked impact on bone health. Lastly, the majority of trials did not select participants based on their vitamin D levels, as such these participants may not even have required additional vitamin D in their diet to improve bone health."

## Omega 3 and anxiety

A new review has confirmed a connection with omega 3 fatty acids (w-3 FAs) and easing anxiety.

Researchers reviewed the current state of the research to identify potential mechanisms underlying the relationship between w-3 FAs and anxiety reduction.

Of the 197 full-text studies screened, six met criteria for inclusion. Four mechanisms were identified based on primary outcomes reported by each study, Inflammatory Response, Brain-Derived Neurotrophic Factor (BDNF), Cortisol, and Cardiovascular Activity.

In conclusion, the team reported: "Five key recommendations are provided to guide future research examining w-3 FAs and anxiety. They include: (1) standardization of dosage and duration of w-3 supplementation, (2) more rigorous measurement of variables, (3) effective blinding of participants, (4) designing experiments that test mediation, and (5) increasing sample diversity."





## Impact of antibiotics on gut microbiota revealed

New research has shown that antibiotics can predispose the gut to avoidable infections.

Scientists at The University of Manchester, led by Dr Elizabeth Mann, also found that substances derived from fibre prevent this damage to the gut, suggesting that a high fibre diet could be useful when taken during and after a course of antibiotics.

The research, to be published in Science Translational Medicine and funded by the Wellcome Trust and the Medical Research Council, tested broad spectrum antibiotics on mice to assess their impact on the gut's microbiota.

After a week long course of antibiotics, a harmful immune reaction started that lasted at least two months, an equivalent, say the researchers, of many years in humans. The immune reaction meant that significantly fewer beneficial bacteria, which make 'short chain fatty acids', grew back.

"Epidemiological evidence already links antibiotics given to babies and young children,

when the immune system is still developing, to inflammatory bowel disease, asthma, psoriasis and other inflammatory diseases later in life," explained Dr Mann, who is based at the University's newly launched Lydia Becker Institute of Immunology and Inflammation. "However, until now it has been hard to determine cause and effect, especially with the time lag between taking the antibiotics and the development of disease later in life.

"This study helps explain the link through understanding the biological processes involved."

She added: "Not all patients taking antibiotics will get these diseases, and that's because most people need a genetic predisposition to get them. And it's very important that patients continue their antibiotics as these drugs are critical in clearing bacterial infections that can persist and cause serious health problems if left untreated. But what we're saying is that antibiotics must only prescribed when absolutely needed for bacterial infections.



## Dairy fat consumption linked to lower risk of type 2 diabetes

Researchers at the Medical Research Council have found that higher levels of biomarkers of dairy fat consumption are associated with a lower risk of developing type 2 diabetes.

The research, published in *PLOS Medicine*, involved more than 60,000 adults and was undertaken by an international consortium led by scientists at the Medical Research Council Epidemiology Unit, University of Cambridge, and the Friedman School of Nutrition Science and Policy at Tufts University.

The researchers examined specific biomarkers of dairy fat consumption from a total of 63,682 adults from 16 multi-national studies that are part of the FORCE Consortium. The participants were all free from type 2 diabetes when the first samples were taken, and 15,158 of them went on to develop type 2 diabetes over the follow-up period of up to 20 years. In each of the studies, the researchers analysed the relationships of dairy fat biomarkers with the risk of developing type 2 diabetes.

When all the results of the 16 studies were pooled, the researchers found that higher concentrations of dairy fat biomarkers were associated with lower risk of developing type 2 diabetes. This lower risk was independent of other major risk factors for type 2 diabetes including age, sex, race/ethnicity, socioeconomic status, physical activity and obesity. For example, if people among the top fifth of the concentrations of dairy fat markers were compared with people among the bottom fifth, the top fifth had approximately 30 per cent lower risk of type 2 diabetes.

Lead author, Dr Fumiaki Imamura, from the MRC Epidemiology Unit, University of Cambridge, commented: "Our results provide the most comprehensive global evidence to date about dairy fat biomarkers and their relationship with lower risk of type 2 diabetes. We're aware that our biomarker work has limitations and requires further research on underlying mechanisms, but at the very least, the available evidence about dairy fat does not indicate any increased risk for the development of type 2 diabetes.

"We hope that our findings and existing evidence about dairy fat will help inform future dietary recommendations for the prevention of lifestyle-related diseases."

Senior author, Professor Dariush
Mozaffarian, Dean of the Friedman School
of Nutrition Science and Policy at Tufts
University, added: "While dairy foods are
recommended as part of a healthy diet,
U.S. and international guidelines generally
recommend low-fat or non-fat dairy due to
concerns about adverse effects of higher
calories or saturated fat. Our

findings, measuring biomarkers of fatty acids consumed in dairy fat, suggest a need to re-examine the potential metabolic benefits of dairy fat or foods rich in dairy fat, such as cheese."





## New to market

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

## **NUTRI ADVANCED UNVEILS** TWO GUT FOCUSED PRODUCTS

Two live bacteria supplements have been developed by popular practitioner brand, Nutri Advanced.

Both products boast ProtectAir technology, which guarantees the number and quality of live bacteria until the end of the product's shelf life at room temperature.

Ultra Probioplex Ultra is a high strength probiotic boasting 25bn live bacteria, with blackberry fruit extract for normal bowel function and vitamin D for the immune system. It is designed to be fast acting, with the intestine completely colonised within 24 hours.

Ultra Probioplex Duo features 8.5m live bacteria and six million Saccharomyces boulardii and has been designed for use when travelling to counteract gut-related issues. Its creators say it can also be used while on a course of antibiotics.



## **G&G EXPANDS PORTFOLIO**

L-Lysine has been unveiled as the most recent innovation at G&G Vitamins.

The product has been made using high clinical grade lysine to ensure the best quality, and is suitable for vegans, as well as being kosher approved. It is also free from allergens.

The amino acid is used in the biosynthesis of protein, and because the body cannot make lysine, it has to be acquired from the diet; given that most vegetables and vegetable protein are not very high in it, and that vegetarians and vegans may have low levels, G&G has created a supplement to address this.



## **HEART HEALTH LAUNCH FOR VIRIDIAN**



Cardio Multi is the latest addition to the range at Viridian Nutrition.

A vegan formulation, the supplement features a blend of vitamins, minerals and phytonutrients to promote cardiovascular health and function.

The carefully-selected ingredients in this multivitamin and mineral complex have been scientifically studied with regards to improving blood lipid profiles, promoting endothelial health and maintaining vascular function and features pomegranate and garlic extracts and complies with claims regulations and includes vitamin B1, which contributes to the normal function of the heart.

## **GUMMY RANGE DEVELOPED BY INGREDIENT SUPPLIER**

HTC Health is tapping into growing demand for gummy supplements with the launch of a new four-strong range. Each gummy has been formulated to provide key nutrients for overall health and vitality and uses only natural colourings and flavourings.

Within the range is sugar free Children's Multivitamin Gummies, designed for general wellbeing and immunity, and containing vitamins A, C and D3, along with vitamin E, and suitable for those aged three upwards. A new Adult Multivitamin & Minerals Gummy has also been devised to include essential vitamins A through to E and minerals including iodine and zinc.

You can also find Calcium & Vitamin D3 Gummy for bone support and healthy teeth, and finally Multivitamin & Omega 3, 6 & 9 Gummy.

Each fully recyclable PET bottle contains 30 gummies, while bespoke gummies can also be found that are sugar free, vegetarian, specialised in a selection of natural colours, flavours, shapes and sizes.





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## BANTNews

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



## **BANT CONFIRMS SUPPLEMENTS SHOULD ONLY BEEN** TAKEN WHEN RECOMMENDED BY A TRAINED HEALTH **PROFESSIONAL**

ollowing publication of research by the University of Hertfordshire, highlighting the possible risks of combining prescription medication with food and herbal supplements, BANT (British Association for Nutrition and Lifestyle Medicine) confirms that supplementation of vitamins, minerals and herbal remedies should only be taken following a consultation with a health professional, who has been trained specifically in this area.

With a 2016 Mintel Report highlighting the growth of the vitamin and supplement market from £421m in 2016 to an estimated £475m by 2021 and the increased awareness of the general public about preventative nutrition and lifestyle medicine, safety surrounding the recommending and provision of supplements is paramount.

Registered Nutritional Therapists can work with other health professionals to help meet NHS contractual obligations to provide healthy lifestyle and public health advice to people with diabetes, those who are at risk of heart disease, are overweight or who just need professional support to lead healthier

Registered Nutritional Therapists are specifically trained to recommend quality supplements to individuals if appropriate after thorough assessment of case history, prescription

medications and any relevant test results. BANT Nutrition Practitioners are, in particular, trained in supplement/ medication interactions and are professionally insured to recommend supplements.

For people looking for nutrition advice, BANT Nutrition Practitioners will always recommend dietary support first for clients. BANT member practitioners are also registered with the Complementary and Natural Healthcare Council (CNHC) a PSA Accredited Register.



## **BANT CENTRE OF EXCELLENCE**

Despite the usual summer lull in work activity, BANT's Centre of Excellence has continued to provide BANT members with new scientific research and educational resources.

One of the largest projects the Centre of Excellence has undertaken to date has been the development of the Nutrition Evidence Database, which allows for a search of specific topics or a browse through the newly added content. The database is now available open access, so all nutrition practitioners can share links with clients and other healthcare practitioners. Each month, a number of newly released scientific studies are 'enhanced' by a BANT team of indexers, providing plain language summaries of the science as a quick read, and classification of the article using the functional medicine framework.

The topic focus for indexing over the past two months has been on the different aspects of the microbiome. The top picks of these articles can be found either on the BANT closed members Facebook page, as

well as on the BANT public Facebook page.

The public page posts are available to share and serve as a useful tool to demonstrate knowledge of the latest nutrition science. Some of these articles will also be highlighted on the upcoming Evidence Alert, number two. To receive these alerts, a free subscription is needed to the database by simply clicking on 'Subscribe' on the database home page.

Going forward, the topic focus will shift to very low-calorie diets and diabetes reversal, low carbohydrate diets and nutritional ketosis. Topic change alerts will be provided through the Facebook posts on highlighted articles.

If you are a newly qualified BANT member, you will find a wealth of resources to assist you in getting your business up and running.

For other features, including PR, marketing and business development, practitioner toolkits and posters and a list of recommended databases, journals and sources of information, visit www.bant. org.uk/centre-of-excellence/





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## Final IHCAN Conference places focus on immunity

Immune health is the theme for the closing IHCAN Conference of 2018.



Conference Centre to present the final IHCAN Conference of 2018.

Taking place on Saturday, November 17, the event focuses on the immune system, with Biologist, Mycologist and Mycotherapist, Catalina Fernández Ana de Portela, and Robyn Puglia, a Clinical Nutritionist with special interest in the functional medicine approach to health, confirmed as speakers.

Founder of Hifas da Terra, Catalina has built her life and business around the beneficial properties of medicinal mushrooms, studying their composition and creating innovative products. She began investigating the beneficial properties of mushrooms in the late '90s while a biologist at the Universidade de Santiago de Compostela. She has been presented with several awards for her remarkable work and visionary approach by creating biotech products of high added value from a natural resource, mushrooms.

Catalina will be joined by Clinical Nutritionist, Robyn Puglia, who has a special interest in functional medicine and is very involved in the field of coeliac disease, gluten-reactive disorders and autoimmune disease. Her passion for the healing multiple diagnoses, and chronic health issues, such as ME, autoimmune diseases and fibromyalgia.

She commented: "Many people come to work in this field because of their personal struggles with health. I was already a nutritionist when my own health bottomed out, but this experience has shaped my practice, and driven my focus on autoimmune disease, complex cases, unexplained illness and all things gluten-related. I discovered that there were a lot of other people out there who were in the same situation as I was. People who were struggling with their health, or the health of their children, but couldn't find any answers regarding why they were ill, or what to do about it."

Also confirmed is Dr Malcolm Kendrick, who will offer a unique counterpoint after recently publishing a paper with fellow cholesterol-sceptic, Dr Uffe Ravnskov, challenging the theory that it is raised LDL cholesterol that leads to heart disease in people with familial hypercholesterolaemia. The real cause of heart disease – immune system-related inflammation – is being buried under an avalanche of drug company sponsored 'research'.

nutrition and functional medicine, a healthy gluten free lunch, refreshments through the day, plenty of time to network with exhibitors and peers, and a free goody bag, you don't want to miss the last IHCAN Conference of 2018.

Places are close to selling out, so we recommend booking now to avoid disappointment. Standard tickets are priced at £95, with significant discounts available for previous attendees, students and members of associations.

Book now by visiting www.ihcanconferences.co.uk or call the team on 01279 810080.

## **DATES FOR 2019**

We have now released the 2019 IHCAN Conference dates, with speakers and sponsors to be announced in the coming months. Save the dates to make sure you don't miss out.

### THE 2019 SERIES WILL BE:

- February 16.
- March 9.
- March 30.
- May 11.
- June 29.
- September 14.
- November 23.



## LET'S PAUSE ON ENOPAUSE



Women can now expect to spend one third of their lives post-menopause. Here, Ginevra Davis, the subject of this year's *Nutrition I-Mag* Mentoring Scheme, offers her insights into a potential management plan.

atural menopause is a normal physiological event in a woman's reproductive calendar that culminates in a series of endocrine changes that result in the cessation of menstruation.(1)

The average age for women in the UK to reach menopause is 51, although it can occur anytime between the age of 40-60 years (2) and there is a strong correlation between the age mothers and daughters reach menopause with heritability rates around 50 per cent. (3)

The transition can be broken down into three key stages, with symptoms beginning months or years before periods

■ Perimenopause: Ovaries gradually release less oestrogen, whilst levels of follicle stimulating hormone



(FSH) rise, resulting in decreased fertility, fluctuations in menstruation and altered mood.(4)

- Menopause: Medically defined as a year since amenorrhoea with the absence of any other physiological causes, which results in infertility and oestrogen deficiency.(4)
- Post-menopause: The years following period cessation, which carry increased health risks related to loss of oestrogen, such as bone density, cardiovascular disease and breast cancer.(3)

As a result of increasing life expectancy, women can expect to spend over one third of their life postmenopause (5), highlighting a clear opportunity for practitioners to empower women to embrace this new phase of life and navigate their clients through this change with a solid understanding of its physiological and psychological manifestations.

## WHAT CAUSES MENOPAUSE?

Menopause is a series of endocrine changes that occur when the follicle pool is almost depleted, leading to a gradual diminishment of oestradiol, reduction of inhibin B and higher levels of follicular stimulating hormone (FSH).(3) Thus, the ovaries gradually cease to release an egg each month, which is characterised by a loss of oestrogen and progesterone, the sex hormones that are responsible for ovulation and the thickening of the lining of the womb.

Whilst the mean age of menopause appears to be globally universal, suggesting a strong biological influence, (3) the same cannot be said for the symptoms of menopause that vary widely across the globe.

## WHAT ARE THE SYMPTOMS?

NICE guidelines estimate that eight out of 10 women in the UK experience some menopause symptoms, which typically include vaginal dryness, hot flushes,



sexual dysfunction, memory loss, mood changes, headaches and joint stiffness.(1)

However, susceptibility to these symptoms varies greatly between countries; for example, a 2014 intercontinental review indicated that only 58 per cent of Asian women reported hot flashes and excessive sweating, compared to 97 per cent of women in Europe, while 23 per cent of women in Australia reported insomnia compared to 73 per cent in Europe and African women were the most at risk of depressive disorders (81 per cent) compared to 59 per cent of women in Europe. (6)

These differences indicate the need to offer a personalised approach to symptom management and to question the cultural backdrop of the client. Could it be that differences in diet and lifestyle are determining these statistics or rather cultural beliefs around a woman's status and worth post-menopause?

Dr Marilyn Glenville writes in her book, Healthy Eating for the Menopause, that "people's attitude to the menopause vary enormously around the world. In some cultures, it is seen as a positive change; freedom from the need of contraception... Yet it in our society it is usually seen as a time of loss."(7).

Given our youth driven culture, it is not surprising that women may feel vulnerable during this dramatic period of change. It is critical that we design interventions that consider their support network, as well as physiological circumstance to find the best strategies for living well in this new phase of life.

"NICE guidelines estimate that eight out of 10 women in the UK experience some menopause symptoms, which typically include vaginal dryness, hot flushes, sexual dysfunction, memory loss, mood changes, headaches and joint stiffness."



## **HOW TO COMBAT THE RISKS POST-MENOPAUSE**

There are myriad of health issues indicated for women post-menopause, the most prominent of which are cancer, cardiovascular disease, reduction of bone density and depression. In this next section, we will shine the spotlight on these areas and suggest some strategies for alleviating symptoms.

### **BONE DENSITY**

Oestrogen regulates bone turnover in adults, preventing the reabsorption of bone and plays a key role in the growth and maturation of bone. (8)

In the years following menopause, the NHS indicates that women can lose up to 20 per cent of their bone density, which can lead to an increased risk of osteoporosis and fracture. The risk is increased if women are inactive, if they smoke or consume too much alcohol. (9) It is estimated that for western women, their lifetime risk of osteoporotic fracture is 40-50 per cent. (10) Therefore, strategies to improve bone density are vital to combat these changes. Some strategies include:

- **Keeping active,** particularly with weight bearing exercises, such as press-ups or pilates.
- ■Vitamin D intake; the EFSA recommend 15µg per day from sunlight exposure or dietary sources such as oily fish and eggs.(11)
- ■Good sources of protein, such as oily fish, lean meat, nuts and pulses to build muscle mass.
- ■Calcium from dietary sources, such as green leafy vegetables, tinned fish and nuts and seeds.

## **DEPRESSION**

It is reported that women suffer with depression twice as much as men. (12) Whilst no clear link has been

established as to the cause of this gender disparity, it has been hypothesised that hormonal changes may be to blame, highlighting key events, such as puberty, pregnancy and menopause as potential trigger points for the illness.(12)

It is pertinent to note that many of the changes associated with menopause also coincide with important lifetime events, such as planning for retirement, changes in family structure and overall health status that will impact on emotional and mental health.

In one Harvard study reviewing the risk for new onset depression, researchers draw a link between vasomotor changes, such as hot flushes and sleep disruption as a potential mechanism for increased risk of depression and reduced quality of life. (13) Strategies to combat depression include:

- **Reduce refined sugars** as these can cause sharp drops in energy, causing irritability, fatigue and low mood.
- ■Increase essential fats from dietary sources, such as oily fish, flax and chia seeds.
- ■Build a support network of supportive friends and
- **Exercise:** In a 2016 meta-analysis of exercise as a treatment for depression published in the *Journal of* Psychiatric Research, researchers indicated 'exercise has a large and significant antidepressant effect'(14).

## CARDIOVASCULAR DISEASE

Oestrogen has a cardioprotective effect on the heart, pre-menopause, affording women a lower risk and later onset of coronary heart disease. (15) The mechanism is thought to be due to oestrogen's vasoprotective and anti-inflammatory effects. (16) Therefore, postmenopause new strategies need to be employed to

mediate vasomotor symptoms:

- ■Increase antioxidants by eating a colourful variety of fruit and vegetables to reduce inflammation and free radical damage.
- ■Adequate fibre facilitates the elimination of oestrogen, cholesterol and toxins. Soluble sources include berries, oats and beans.
- Phytoestrogens can have an oestrogenic effect when metabolised in the gut, buffering some of the deficit left through menopause. Legumes offer a good source of isoflavone content, such as soya, lentils, chickpeas, beansprouts and linseed.

## **CANCER**

The link between oestrogen and breast cancer proliferation in post-menopausal women is welldocumented, with the incidence highest in oestrogen receptor positive tumours.(17) Key established risk factors include higher BMI and alcohol consumption. (18)

One potential mechanism is the enzyme, aromatase, found in adipose tissue, which is responsible for converting C19 steroids to oestrogens. Thus, weight gain can give rise to increased circulating levels of oestrogen in a post-menopausal woman and such oestrogen, regardless of its origin, can promote proliferation in these steroid responsive cells. (19) Some strategies include:

- ■Maintaining a healthy BMI.
- **Reducing alcohol consumption:** In a 2014 review of epidemiological research on alcohol consumption and breast cancer risk, it stated 'an overwhelming number of epidemiological studies provide support for the positive relationship between alcohol and breast cancer risk'(18). This was true for intake of 10g of ethanol per day, which equates to just 100ml of wine, almost half that of the typical 175ml serving in the



UK (20)

■Reducing glycaemic load: In a European prospective study, there was shown to be a strong positive correlation between high glycaemic diets and breast cancer risk, particularly in relation to ER- and ER-/PR- breast cancer. The mechanism is thought to be affected by insulin like growth factor I (IGF-I)-mediated mitogenesis or the stimulation of insulin receptor. (21)

## **MENOPAUSE MANAGEMENT PLAN**

Whilst the age for the onset of menopause is consistent across the globe, we have seen that symptoms for this transition can vary widely.

At this critical phase of life, practitioners should emphasise the dietary and lifestyle factors that have consistently emerged from the research as triggers for both menopausal symptoms and associated risk factors, post-menopause. Key factors include regular exercise for improved mood, bone density and heart health, adequate dietary fibre for detoxification and elimination of cholesterol and oestrogen, as well as weight management, reducing alcohol and glycaemic load for the prevention of certain types of breast cancer.

It is clear that there is not going to be a one size fits all regimen for living well, post-menopause but addressing these key factors, in combination with emotional management of midlife changes, will be critical steps to living well through menopause and beyond in this expanding chapter of women's lives. The best plan for management of menopause starts with a good quality diet, which includes:

■ Plenty of antioxidants from fresh vegetables and fruit, particularly leafy green vegetables, which are a rich source of folate and low G.I fruits, such as berries, pears and plums.

- Good sources of fibre from oats, berries and beans to support adequate detoxification and elimination of excess oestrogen and LDL cholesterol.
- ■Adequate vitamin D from sunlight, diet or supplementation appears to be both cardioprotective and have inhibitory effects on cancer proliferation.
- ■Essential fats from oily fish, nuts, seeds and good quality supplements to reduce chronic inflammation associated with hot flashes.
- Phytoestrogens, such as fermented soya, lentils, chickpeas and bean sprouts, bind to oestrogen receptors and have a mild oestrogenic effect.
- ■Lean sources of protein for maintaining muscle mass, such as wild meats, chicken and beans and pulses.
- **Reducing G.I. load** with complex carbohydrates such as brown rice, wholegrain bread and oats.

## **NUTRITIONAL AND HERBAL SUPPORT**

Resveratrol is a rich source of polyphenols and has shown promising results in a recent 2017 review for its regulating effect on inflammation via the nuclear factor kB (NF-kB) signaling pathway<sup>(22)</sup>, reduction of LDL cholesterol and hypertension and chemoprotective effects in vitro and in vivo, directly inducing apoptosis. Further qualitative research on resveratrol, in combination with equol supplementation, also indicated improved health related quality of life for menopausal symptoms.<sup>(23)</sup>

Red clover is similar in molecular structure to soy but with increased levels of O-methylated isoflavones, formononetin and biochanin A, which are thought to exert an oestrogenic effect, with some clinical trials indicating positive improvements in bone mineral density compared to controls, however, the research is not conclusive and therapeutic effects were modest in

this area.(24)

"At this critical phase of life, practitioners should emphasise the dietary and lifestyle factors that have consistently emerged from the research as triggers for both menopausal symptoms and associated risk factors, post-menopause."

Black cohosh is a native American remedy for menstrual complaints and a rich source of triterpene glycosides, flavonoids and aromatic acids. It is thought to have a serotonergic effect by acting on serotonin receptors and may improve mood and relieve hot flashes. Clinical trials have shown promising results for its effect on vasomotor symptoms for medium term use of up to six months.<sup>(24)</sup>



Ginevra Davis is a qualified nutritional coach and freelance writer in the final year of her Nutritional Science BSc at the Centre of Nutrition and Lifestyle Medicine. She writes professionally online for a range of publications, as well as posting recipes and lifestyle tips on her Radiant Health Nutrition blog. She has a specialist interest in children's health and nutrition

# Nutrition Product

Showcases

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## Cleanmarine MenoMin - A Natural Approach to Menopause

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menopausal women, helping to regulate hormonal activity, maintain normal mucous membranes and healthy skin, as well as reduce tiredness and fatigue. Also, Vitamin D contributes to normal absorption and utilisation of calcium and phosphorusin and maintenance of normal bones and muscle function. Also, Cleanmarine phospholipid Krill oil ingredient has been certified by the Marine Stewardship Council as being from a well managed, sustainable traceable fishery. For more information call 0113 388 5230 or visit www.savant-health.com

## Support for the Menopause

Meno Support (Multi) from the Natural Health Practice has been formulated in association with Dr Marilyn Glenville PhD and is an all-round excellent multivitamin and mineral supplement in easy to swallow capsule specially formulated to help women through the menopause and beyond as well as supporting good bone health. It contains a full spectrum of nutrients including vitamin A, E and the B Vitamins, beta-carotene and selenium.



As well as those all-important bone nutrients such as calcium, magnesium and vitamin D3. Also contains digestive enzymes to help digest fats, protein and carbohydrates. Now Vegan and Vegetarian registered, Kosher approved and Halal compliant according to manufacturer's GMP.

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## Periagna

"PERIAGNA® (Vitex Agnus castus) is a natural medicine for Pre-menstrual syndrome and some menopausal symptoms. The efficacy of Vitex Agnus castus was established in 1993 as a result of a successful double blind clinical trial using this Periagna® formulation. Periagna® is recommended to relieve symptoms such as mood swings, breast tenderness, migraines

linked to PMS, acne and irregular periods and at the time of hormonal imbalance commonly known as "the change of life". Periagna® should be taken daily, preferably in the morning on waking when the hypothalamic –pituitary axis in the brain is most active. For more information call 01634 290115 or visit www.bio-health.co.uk.





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The standard European diet often leads to excess acidity, musculoskeletal issues and poor health.

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## **The Clinical Tool covers:**

- Acid-base balance the basis for a functioning metabolism.
- What are acids & bases?
- . Calculating the acid load of diets acid using a PRAL food chart.
- . Chronic mild metabolic acidosis (CMMA)
  - The causes
  - The symptoms and consequences
- · Assessing acid-base balance in clinic.
- Understanding the ABC of acid-base balance and why you need to complete all three with your patients.
- Easy to follow explanations of how to perform the ABC steps.
- The importance of acid-base balance assessments.
- Therapeutic guidelines for mild to severe CMMA.

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## FEELING UNHEALTHY? THIS IS WHY SUGAR COULD BE TO BLAME

Follow some important advice on how to help your clients cut back on their sugar intake.

Tt's the perfect time of year to bundle up with warm clothes and comfort food, though for many people, Lcomfort food means cakes, sweets and sugary treats. However, sugary foods can be wreaking havoc on your health in ways you wouldn't always consider.

Simple sugars are a source of calories that provide little in the way of nutrition or satiety (the feeling of fullness). As a result, it's quite easy to consume sugary foods in excess, especially as they have an addictive quality. It's even harder to resist temptation when we have the festive season around the corner, an easy time to throw caution to the wind and indulge in 'naughty' foods.

## **BALANCE IS KEY**

When our blood sugar is too high (known as hyperglycemia), we can experience issues including tiredness and fatigue, excessive thirst and urges to go to the loo, coupled with altered vision, such as blurriness. Ultimately, we will release masses of insulin into the bloodstream as well, which may often result

in low blood sugar, also known as hypoglycaemia – the sugar crash. Symptoms associated with hypoglycaemia include tiredness, low mood, headaches, irregular heartbeats, feeling dizzy and craving sweet foods – starting the cycle all over again!

## **HOW MUCH SUGAR SHOULD WE HAVE?**

The World Health Organization has recommended that daily sugar intake should be no more than five per cent of total calorie intake (approximately 25g/day for an adult). When it comes to what we should eat, starchy carbohydrates (wholegrain breads, whole wheat pasta, brown rice, etc.,) are generally more slowly absorbed than their counterparts, making you feel fuller for longer and steadying blood sugar levels.

Adequate fruit and vegetable intake is vital, but the emphasis should be on vegetables. Vegetables offer a high density of micronutrients, such as vitamins and minerals, and typically low intrinsic sugar. Fibre-rich foods, healthy fats (such as oily fish) and lean protein are all healthy additions to a diet.

## **TYPE 2 DIABETES AND OBESITY**

Overconsumption of sugars can lead to weight gain, while being overweight or obese elevates the risk of type 2 diabetes development; Diabetes UK estimates that over 12m in the UK are at increased risk of developing Type 2 diabetes. While sugar is not the sole cause of diabetes, it is a large contributing factor, but thankfully it's something we can do something about.

If you're overweight or obese, you may be at higher risk of Type two diabetes, as the pancreas struggles to produce enough insulin for the body's needs.

Fat tissue stored around the abdomen especially contributes to diabetes risk as it is considered highly hormonally active.

This tissue has been shown to produce compounds known as cytokines, which can cause pancreatic issues, including diabetes when in excess or exposed to over long periods of time. Working towards reducing this excess weight through exercise and healthy eating choices can significantly lower your diabetes risk.

## **ACHIEVING BALANCE WITH SOME NATURAL ASSISTANCE**

There are natural steps that can be taken to control blood glucose levels and to ensure that we can make the most of available sugars in our foods.

Research published in *Panminerva Medica* in June 2014 showed that an extract of maqui berries (known as Delphinol) can assist in the control of blood glucose, by reducing the rate at which glucose is absorbed into the bloodstream from the digestive tract. The active ingredient delphinidin was shown to inhibit the sodium glucose co-transporter (SGLT), which facilitates the uptake of glucose from food into the intestinal tissue and the blood, thus avoiding the sharp spikes in blood sugar, which can result following eating.

### CHROMIUM AND BLOOD GLUCOSE

The role of the trace mineral, chromium (found in small quantities of green leafy vegetables, poultry and nuts), in blood glucose management is well established. High blood sugar can also be a sign of chromium deficiency, and it can even resemble diabetes.

Adequate chromium intakes are needed for insulin to perform at its best and, therefore, blood sugar regulation. Chloride or picolinate forms of chromium supplements are common, but they typically have very low bioavailability (0.5-two per cent) meaning poor absorption from tablet to bloodstream.

ChromoPrecise (an organically bound chromium yeast) demonstrated up to 10 times the bioavailability of chloride or picolinate forms and has been approved by The European Food Safety Authority (EFSA) after extensive investigation. It has also been confirmed that ChromoPrecise helps maintain healthy blood glucose levels.

## **BE SUGAR SMART**

Controlling blood sugar can have a massive impact on health, beyond reducing the risk of developing or furthering diabetes. Good sugar control can be useful for:

- ■The maintenance of healthy weight.
- ■Stable energy and concentration levels.
- ■Controlling sweet and sugar cravings.

So, while it's tempting to sink your teeth into some sweet treats, being sugar smart could help you enjoy yourself way beyond Christmas and into the New Year.

# A modern approach to blood sugar management

- Reduce cravings
- ✓ Control blood sugar levels
- ✓ Avoid energy highs and lows



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# ESSENTIAL GUIDE TO PROBIOTICS

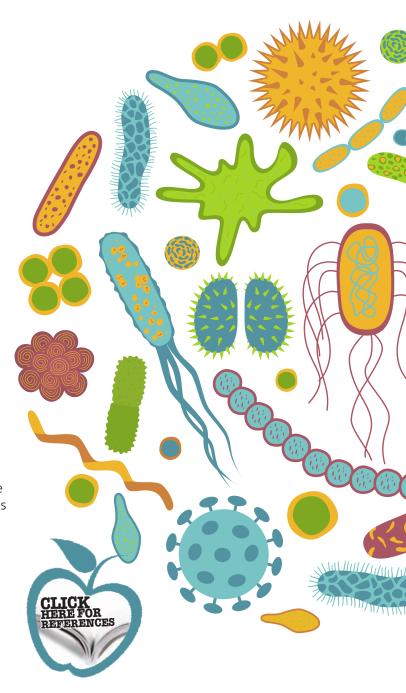
Gut health ranks as one of the most common areas of focus for Nutritional Therapists in practice. Understanding the microbiome, and the correct protocols when it comes to probiotics, is, therefore, crucial, say the experts.

t's widely accepted within the world of nutritional therapy that probiotics (often termed healthy bacteria or more commonly these days, live bacteria) are critical for digestive health. What there isn't quite a consensus on is exactly what is needed and at what level, and, in fact, a growing body of research confirms that there is not a one size fits all approach when it comes to what a person needs; different health issues, different people and different lifestyles all play a role in determining the right one for your client.

So, where do you start? Why are probiotics so important for not just a healthy gut but for a healthy person generally? And what are the critical questions you should be asking prior to recommending any

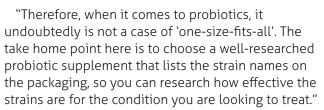
product?

"Different probiotics have different benefits. For example, *Lactobacilli* tend to colonise the walls of the small intestine and help with the breakdown of food, whereas *Bifidobacteria* tend to colonise the large intestine and ensure regular bowel movements. What's more, research shows that we must look to the strain name to identify how they will behave in our body. For example, *Lactobacillus rhamnosus* Rosell-11 can help to stabilise the gut during antibiotics<sup>6</sup>, whereas *Lactobacillus rhamnosus* GR-1, although of the same genus and species, has been shown to colonise the vaginal tract to help provide a healthy balance of good bacteria<sup>7</sup>," explained Sarah Oboh, Nutritionist at OptiBac Probiotics.









Natalie Lamb, Nutritional Therapist and Technical Advisor at Protexin, which has the Bio-Kult and Lepicol brands, added: "Research supports the concept that not all probiotics are equally effective, but a consensus has not been uniformly reached as to which probiotic products should be used for specific disease conditions. Direct strain to strain comparisons in the same RCTs for the same type of disease indications are extremely rare.

"Probiotics are thought to work by reducing the luminal pH, competing with pathogens for adhesion sites and nutritional sources, secreting antimicrobial substances, toxin inactivation, and immune stimulation. 16 Whilst we commonly refer to probiotics in general as having these mechanisms of action, not all strains will do all these things. Many will have particular strengths in certain areas. The Bacillus subtilis PXN 21 has been shown to colonise in the gut, stimulate non-specific innate immunity<sup>18</sup> and reduce damage from C. difficile infection<sup>19</sup>. In many disease conditions (especially those which are multi-factorial in nature), a number of these mechanisms of action are likely to be beneficial. A review by Chapman et al in 2011<sup>20</sup> showed that probiotic mixtures appear to be effective against a wider range of symptoms and conditions than single strain products."

## **GUT SCIENCE**

The inner workings of the gut are pretty fascinating, especially given this part of the body plays such a

crucial role in the rest of our health.

"The term 'dysbiosis' is commonly used to describe the condition in which there is an imbalance of beneficial and pathogenic bacteria in the body, changes in bacterial distribution within the gut or changes in bacterial metabolic activities," explained Oboh.

"When the intestinal bacterial homeostasis is disrupted, the gut becomes vulnerable to pathogenic attack. Inflammatory bowel disease (IBD), a term mainly used to describe three inflammatory conditions, ulcerative colitis, diverticulitis and Crohn's disease, have been closely associated with microbial imbalance. Numerous studies have found altered bacterial diversity in patients suffering with IBD conditions compared with healthy control patients. These studies support the hypothesis that intestinal microbiota contributes to the pathogenesis of IBD conditions, however, it is important to note that there are many contributing factors to consider when understanding the etiology of a client's presenting condition."

There are some obvious signs a client is experiencing unbalanced levels of bacteria.

Raihane Palagi, Clinical Nutritionist at BioCare, explained: "Individuals with gut dysbiosis can present with various symptoms. They can usually experience digestive issues (bloating, excessive flatulence, pain, bad breath, nausea, floaty stools, diarrhoea, constipation, anal itching), but can also present with systemic symptoms, such as acne, eczema, fatigue, skin rashes, poor concentration, brain fog, low immunity, low mood, depression, recurrent vaginal infection, sex hormone imbalances, and weight loss." Katherine Pardo BSc (Hons), Dip ION Head of Nutrition at Nutri Advanced, added: "Recurrent abdominal





pain and cramping (often relieved following a bowel movement), change in bowel habits (diarrhoea/ constipation or both), bloating, excessive wind, urgent need to go to the toilet, lack of energy, and nausea." Lamb added: "Gut flora imbalances could also be indicated in numerous symptoms that may at first not be seen to be related to the gut, such as skin conditions,<sup>5</sup> vaginal health,<sup>6</sup> urinary tract infections,<sup>7</sup> fatigue, weight gain,8 poor concentration, anxiety, low mood,9 migraines10 etc.

"With over 70 per cent of the immune system situated and functioning in the gastrointestinal tract and influenced by the microbial balance there, any inflammatory condition could arise if gut health is not maintained. Many experts now believe that the development of auto-immune disorders begins in the gut. 11 An imbalance in gut microbes and intestinal inflammation is increasingly linked to debilitating inflammatory joint and bone conditions, such as arthritis<sup>12</sup> and osteoporosis<sup>13</sup>. An imbalance of gut flora, and subsequent inflammation, has by some researchers been associated with the initial development of cancer, namely bowel cancer."14,15

But why does such imbalance occur?

"Non-digestible prebiotic fibres act as a food substrate for beneficial bacteria, stimulating their growth and activity. Therefore, a diet low in fibres creates the perfect environment for pathogenic strains of bacteria to overgrow.1 One study found that a typical Western diet can lead to a 71 per cent increase in plasma lipopolysaccharides, also known as endotoxins, which are found on the outer membrane of some bacteria and can enter circulation and induce an inflammatory response<sup>2</sup>," Palagi explained. "The use of antibiotics and medications such as PPIs can decrease the number of beneficial bacterial strains and increase

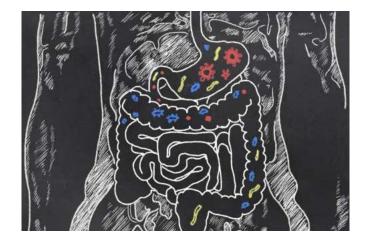
antibiotic-resistant strains.<sup>3</sup>

"Exposure to environmental pathogens through food poisoning or traveling can also cause the presence of undesirable bacteria or parasites in the gut. Stomach acid acts as an acidic barrier against pathogenic organisms. Low production can predispose to higher numbers of Salmonella, Citrobacter, and Clostridium<sup>4</sup>."

### **BACTERIA BALANCE**

We talk a huge amount in this magazine about the microbiome and why it needs to be kept in balance but why is this important? And what factors do you need to take into account when assessing a client?

"We all house trillions of different bacteria in our bodies. Beneficial bacteria play an essential role as our first line of defence, in supporting efficient digestive function and supporting immunity. The typical Western lifestyle of a nutrient sparse diet, lack of exercise, sleep<sup>1</sup> and sunshine, busy often stressful lifestyles,<sup>2</sup> alcohol consumption<sup>3</sup> and the overuse of antibiotics<sup>4</sup> are just some areas that are believed to affect our gut flora balance and our overall health," Lamb advised.



"We have moved so far away from traditional ways of eating. We buy a lot more processed and fast foods for convenience and eat a lot more sugar than our bodies are used to dealing with. Diets high in refined carbohydrates and simple sugars can feed pathogenic bacteria and yeasts, whereas those high in prebiotics and fermented foods encourage the growth of beneficial bacteria to support healthy digestive and immune function."

Jenny Logan, Technical Training Manager at Natures Aid, continued: "It is not possible to be a healthy human if we do not have a healthy microbiome, so important are the good bacteria which live there to many functions within our body. The impact of an unbalanced microbiome can, therefore, be wide ranging, and many therapists could find that utilising specific strains could offer support to most conditions they would commonly see in clinic. So broad ranging is the influence of the microbiome that symptoms of low levels of the right type of good bacteria could include:

- ■Issues with weight loss research has indicated that people who struggle to lose weight and those who have always been slim, have different gut flora. The bacteria in the microbiome can influence the energy used, and the food choices that are made (1).
- ■Skin problems the link between gut health and skin health is well-established, and dysbiosis in the gut can lead to dysbiosis on the skin and the aggravation of skin conditions. (2)
- ■Thrush as the health of the microbiome also influences the health of the bacteria within the vagina.
- Anxiety or depression via the gut brain axis the good bacteria of the microbiome are responsible for the production of important neurotransmitters including serotonin, GABA and dopamine (4)."



Wendy Richards, a Certified Practitioner of the blood type diet and Fellow of the institute Of Human Individuality (MIFHI), who represents SWAMI, added: "Bacteria can be classed as harmful or helpful. Beneficial bacteria are like busy tourists in our guts. They come and go. We don't have a permanent supply, so for a vibrant gut 'economy', we need to continually replenish them via diet. Our gut bacteria vary depending on age, gender, diet, geography, hygiene, stress and medication use.

"The term, 'synergism', best describes the interrelationship of friendly bacteria. They mutually support each other by producing bacteriocidins and organic acids that they are resistant to, but which decrease pathogenic bacteria. In fact, these bacteriocidins are up to 1,000 times more active when combined than when they are isolated. But even more importantly, health effects of one strain of friendly bacteria are often not duplicated by other strains. So, a more complex mixture, combining more friendly strains of bacteria, translates into more profound longterm health benefits."

Jenny Bodenham Dip.ION BA (Hons), Nutritional Therapist at Higher Nature, raised the point that some people consider bacteria to be bad, and clearly, this isn't the case.

"Some bacteria, such as E.coli and Salmonella are bad for us, as they can cause acute or chronic illness. Others, however, live symbiotically within us in a mutually beneficial relationship that has evolved to enhance their life and ours. These 'friendly' bacteria play an important role in health, as they are essential for many functions in the body, including supporting the immune system, supporting digestion and absorption of nutrients, manufacture of many vitamins, including B vitamins and vitamin K, helping to regulate

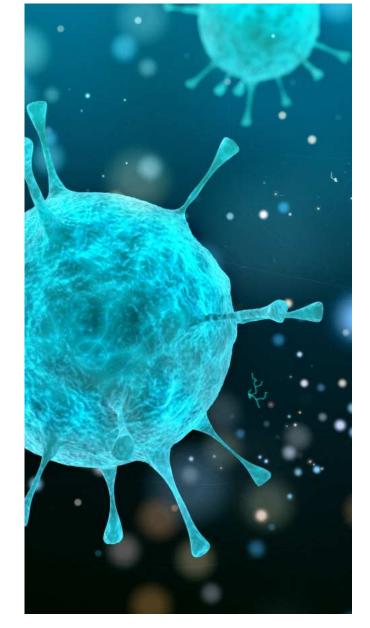
peristalsis and helping bowel regularity."

And Oboh continued: "By reducing the number and diversity of our commensal bacteria, our intestinal barrier is compromised, leading to an increase in intestinal permeability, and an increased susceptibility to pathogenic microbes. In addition, repeated courses of antibiotics, over a short period of time, can impact our microbiome permanently.

"Research has shown that caesarean-born babies have a different microbial composition to vaginallyborn babies for their first few years of life<sup>1</sup> and are at higher risk of asthma and obesity<sup>2</sup>. Additionally, a recent study has found that nearly one-third of beneficial bacteria in the baby's intestinal tract comes directly from the mother's breastmilk<sup>3</sup>. Far from contaminating, a vaginal delivery and breastmilk may be crucial in the maturation of the infant gut microbiome, playing a vital role in the digestion and metabolism of foods and immunological pathways from birth. Without these cornerstone experiences, an individual may be at an increased risk of gut dysbiosis."

Richards turned her attention to blood type and bacteria for two reasons.

"First, your blood type antigens are actually prominent in your digestive tract and, in about 80 per cent of individuals (secretors), are also prominent in the mucus that lines your digestive tract. Because of this, many of the bacteria in your digestive tract actually use your blood type as a preferred food supply. In fact, blood group specificity is common among intestinal bacteria, with almost half of strains tested showing some blood type A, B, or O specificity. To give you an idea of the magnitude of the blood type influence on intestinal microflora, it has been estimated that someone with blood type B will have





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up to 50,000 times more of some strains of friendly bacteria than either blood type A or O individuals.

"Second, some strains of beneficial bacteria actually can have lectin-like hemagglutinin activity directed against your blood type, so avoiding those is a good idea."

### **CLIENT RECOMMENDATIONS**

There are a number of factors the experts advise you keep in mind when recommending a probiotic product to a client – and, of course, a big part of this will relate to the specific needs of the person.

"The term 'probiotic' means 'in favour of life'. It was coined in 1910, by a Russian physician named Metchnikoff, who promoted a theory of longevity, which associated prolonged life and improved health with decreased gastrointestinal toxicity. He suggested that ageing is a process mediated by chronic exposure to putrefactive intoxication caused by imbalances in intestinal bacteria and that this process could be halted by the routine ingestion of lactic acid bacteria and their fermented food products," Richards explained.

"Almost 90 years have passed since he introduced these radical ideas, however, in many respects his ideas have been proven to be true. Consumption of lactic acid bacteria, or food cultured or fermented with these friendly microorganisms does extend life in animal experiments and does dramatically reduce a wide range of intestinal metabolites, such as indoles, polyamines, cresols, nitrates/nitrites, and carcinogens which we now know are counterproductive to good health."

Understanding what a client needs for their issue is crucial, Logan explained.

"It is worth remembering that there are 100 trillion

bacteria forming the microbiome, if a change of balance from 'bad' to 'good' is required, then a high bacterial count – from 30 up to 10bn – is required, and a broad range of different bacteria, rather than iust one or two strains. The microbiome can also be manipulated to encourage the growth of specific strains, which will have a specific health benefit, in these cases only 10-15bn will usually be required, and bacteria can be carefully chosen based on the client's specific health concerns. For example, a combination of L. plantarum, L. reuteri and L. rhamnosus has been shown to effectively inhibit the skin pathogens, which are linked with dermatitis and acne, (7) whilst a combination of B. animalis subsp. Lactis, L. plantarum and L. rhamnosus was shown to provide an effective treatment for IBS-C.<sup>(8)</sup> Clinical trials have also shown that using a combination of L. acidophilus, L. casei and B. bifidum for eight weeks can significantly reduce scores on the Beck Depression Inventory<sup>(9)</sup>."

In terms of advice, let's start with levels of live bacteria.

Lamb explained: "A good probiotic supplement should be stable and able to guarantee the bacterial count until the end of the product's shelf life, not just at the time of manufacture. They should also be able to survive the harsh acidic environment of the stomach to reach the small intestine intact."

Palagi added: "The market of probiotics is huge and there is a variety of different products available, going from liquid to powder forms, using single-strain of bacteria to 10 or more. Nutritional Therapists should aim to use probiotic supplements that contain strains with safety records in clinical trials and naturally present in the human gut. There are thousands of different bacteria in the gut, so trying to recreate that diversity with probiotics is impossible. It is now

understood that supplementing with a few key strains can help create the right environment in the gut for many different live bacteria to flourish."

Oboh added that it is about quality over quantity.

"The quality of the strain is of much more importance than the quantity. Research suggests that sometimes a lower strength probiotic can perform as well as or even better than a high strength one. In one study, over 1,200 volunteers who suffered with constipation were given either 1bn Bifidobacterium lactis BB-12, 10bn Bifidobacterium lactis BB-12 or a placebo each day for four weeks. In both groups taking the probiotic, there was a statistically significant improvement in the frequency of bowel movements, compared to the placebo group<sup>5</sup>," she explained.

"There was also no significant difference between the 1bn and 10bn group. So, the message here is to choose based on the quality of the strain rather than the strength or number of billions. That said, for a probiotic supplement to have any benefit, you must look for a dose of at least 1bn; anything in the millions is a drop in the microbial ocean of our intestines and will not have the desired effects."

Dosage wise, opinions can be mixed.

Lamb added: "There is still no consensus on the most effective dose of a probiotic. Benefits have been seen in ranges from 10m to 100bn CFU a day and that a dose that is found to be effective for one probiotic strain may not be effective for another. A multi-strain probiotic has been shown to be able to exert more positive benefits and reach more areas of the gastrointestinal tract, therefore, being able to help a more diverse range of digestive disorders."

Pardo added that you should look for "scientifically studied, exclusive strains – not all strains are the same".



She continued: "The strains we use are scientifically proven to be effective, unlike most other products on the market. Guaranteed stability and quality – advanced stabilisation technology and manufacturing processes means the organisms remain stable through processing. An effective live bacteria product must reach and colonise the gastrointestinal tract. To do this, the bacteria must be able to tolerate bile, gastric juices and acids."

Bodenham added: "The efficacy of probiotics is dependent on the ability of the bacteria to survive the digestive process and the type of bacteria used. It is important to choose a strain that can survive stomach acid and the digestive juices found in the intestinal tract. They should have the ability to adhere to gut epithelial tissue and be backed up by proven clinical research."

Oboh pointed out that distinction must be made between foods that have levels of good bacteria and probiotics.

"Simply put, the number or strain of bacteria in fermented foods cannot be determined. This presents a problem when dealing with specific conditions, as fermented food is unlikely to give targeted probiotic therapy. The amount of live cultures in fermented foods are subject to vary from batch to batch depending on the growing conditions; well researched probiotics, on the other hand, are meticulously measured so that every probiotic serving contains the precise quantity and strain/s indicated on the pack," she explained. "So, when considering a desired health outcome for your client, it is best to recommend clinically trialled probiotics over the more variable fermented food source."

## **RESEARCH UPDATE**

As mentioned, the area of gut health – and specifically probiotics – is incredibly active when it comes to

research.

In terms of the latest research, Logan commented: "The research around the scope and benefits of probiotic supplementation are still very much in their infancy, and knowledge is just starting to explode. It is now possible to identify which bacteria will be best to use in specific circumstances. Studies are also showing more and more that needs and benefits are very diverse.

"There has been a great deal of focus on the role of probiotics as 'psychobiotics' – to benefit those suffering with anxiety and depression. A 2016 study of people with major depression randomised its subjects into either placebo or probiotic treatment for eight weeks. The probiotic combination provided *L. acidophillus, L. casei* and *B. bifidum*. Those taking the probiotic supplement had significant changes on the Beck Depression Inventory, they also showed significant decreases in serum insulin levels, less insulin resistance, and reduced c-reactive protein – showing that the probiotics affected multiple physiological systems and benefited the patients in a myriad of ways. (19)

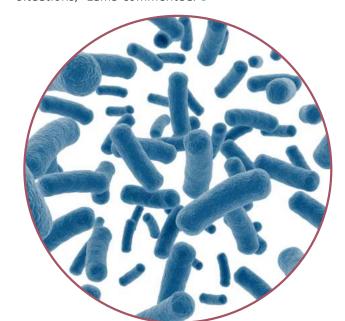
"Recently, a study also showed that using an eight-strain probiotic may help improve measures of cardiometabolic health, including insulin resistance, blood sugar levels, and cholesterol levels. (20) This was exciting because until recently some people have maintained that benefits are best derived from only one or two strain probiotic supplements. This shows us that broad-spectrum products also have an important role to play."

But Palagi also advised: "The latest research is perhaps conflicting for Nutritional Therapists. A recent paper by Zmora et al. has made the headline in the news. The researchers concluded that probiotics were not as useful as we thought. However, they only looked at one particular blend of bacteria and didn't

look at any key gut functions, motility or integrity. The area of gut health is still relatively new and new papers come out every month investigating its impact on other areas of our health, which we once believed to be independent. There is no doubt anymore that supplementing with probiotics can benefit gut health and digestion, the immune system, mood and overall health."

Lamb drew attention to the result of a doubleblind randomised controlled trial of live bacteria supplements in IBS-diarrhoea type patients<sup>21</sup>, using <sup>14</sup> strains in Bio-Kult Advanced Multi Strain Formulation.

"The study in 400 people found that Bio-Kult significantly improved overall symptom severity in IBS patients and was well tolerated. Abdominal pain and frequency reduced by an average of 69 per cent and 34 per cent of participants were completely symptom free at the end of the four-month trial. Bio-Kult was also shown to markedly improve all aspects of Quality of Life. This includes psychological issues, such as anxiety about health, depression, lack of enjoyment of life, and feelings of having to avoid stressful situations," Lamb commented.



## Nutrition

## Product Showcases

## **Garden of Life: Microbiome Formula Once Daily Women's**

Garden of Life has created a unique shelf-stable formula with the most diverse blend of 16 live bacterial strains on the market. Clinically studied strains included by Dr Perlmutter, support women's intimate flora (L.reuteri, L.fermentum and L.rhamnosus) while the blend also supports digestive and

immune health. Each daily serving provides 50 billion CFU of live cultures, resistant to antibiotics, stomach and bile acids and complemented with digestion friendly, certified organic prebiotic fibres. Devoid of artificial ingredients, dairy, gluten and soya, the formula is also Non-GMO Project verified.

For more information or to order visit www.kinetic4health.co.uk email sales@kinetic4health.co.uk or call 08450725825



## What's Your Gut Feeling?

Our immune system can be compromised during the winter months and whilst health problems such as colds, coughs and infections are active all year round, your clients are more vulnerable to them in winter. One way to help your clients Survive Winter naturally this year, supporting the body's natural immunity, to prevent initial infection and reduce the need for antibiotics, is with regular consumption of a live

bacteria supplement with multiple strains. Bio-Kult is a scientifically developed, advanced multi-strain formulation containing 14 live bacterial cultures, proven to survive the high acidity of the stomach.

For more information or to order visit www.bio-kult.com email info@bio-kult.com or call 01460 243230



## Be good to your gut

Featuring an optimal balance of Acidophilus and Lactobacillus, Pharma Nord's Bio-Culture complements the friendly bacteria in the stomach to aid digestion. Each Bio-Culture capsule contains 4 billion live bacteria protected within a



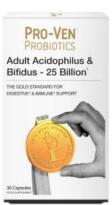
stomach resistant gel. Many probiotic supplements are unable to deliver viable bacteria to the small intestine. This is due to the stomach acid killing off the bacteria before reaching its destination. Bio-Culture capsules feature a special gel matrix that forms when the capsule dissolves in the stomach. As a result, the bacteria is not released until it has reached the small intestine – the point of absorption.

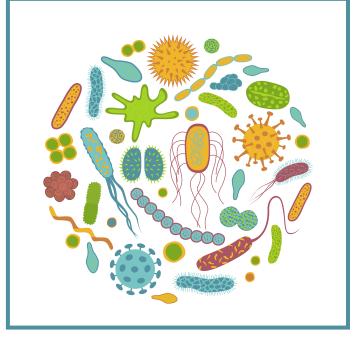
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## **Pro-Ven for Adults**

Not all probiotics are equal.
Pro-Ven Probiotics contain the
comprehensively studied Lab4 and
Lab4b groups of bacteria, which have
been developed by Dr Nigel Plummer
and shown in clinical studies to
support immunity and digestion in
adults, children and babies.
Using proprietary production
processes that ensure the stability of
the live bacteria in combination with
appropriate vitamins, minerals and
other nutrients, the Pro-Ven Probiotics





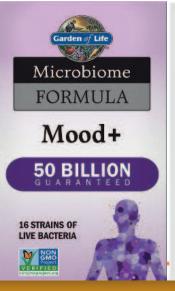
















Formulated by Dr Perlmutter, America's brain-health expert, a board certified neurologist, and an expert in the human microbiome.





A clever marketing term or something you should be using as part of your in-clinic recommendations? The experts discuss the potential of superfoods.

any of the products that are now marketed as superfoods are some of the most enduring nutritional products around, having been used in different cultures for centuries. It is thanks to the rise in interest in nutritional products, coupled with it being an easy marketing term, that we have seen so many products now bear the 'superfood' tag.

But does this mean superfoods are just hype? Or is there really something in it and should you be building these into any recommendations you make when advising clients?

"Superfoods are not new but their immense nutritive value is being highlighted by referring to them as superfoods. I believe going forward, we will see greater appreciation for nature's bounty, and more familiarity with herbs from all over the world," commented Rose Holmes, Nutritionist, BSc, Dip.ION, PGCE, MBANT, Education and Training Manager at Rio Health.





"Nutritional Therapists recommend superfoods all the time and would target specific nutrients relevant to their client's specific health goals and preferences. Superfoods have both widespread benefit and widespread appeal (as they taste great!) and are easy to incorporate into the diet."

Joe Welstead, former Commonwealth athlete and co-founder of sports nutrition brand, Motion Nutrition, offered his insights, commenting: "I think of superfoods a little like rumours; they invariably start with some truth and get embellished for better storytelling. Of course, this can go too far, for example, blueberries can have a positive impact on blood flow to the brain, but what a storytelling brand might omit from mentioning is that you'll need to eat over 200g of fresh berries a day to really get this benefit. The downside of exaggerating the benefit of any food is that this can create a backlash against the 'hype', which is often a shame; whether or not you hit 200g per day, blueberries will be good for you."

Jenny Bodenham BA(Hons) Dip.ION, Nutritional Therapist at Higher Nature, continued: "In an ideal world, we would derive all of our nutritional needs from our diet. A diet rich in a wide variety of fruit and vegetables is desirable but unfortunately, not everyone manages this on a day-to-day basis. Additionally, some out of season fruits and vegetables have to be flown thousands of miles to reach our supermarkets and have often been picked whilst still immature, to ensure there is no spoiling before they reach their destination. Research has found that the further these foods travel, the greater the deterioration of the nutrient content."

## AN ACCEPTED DEFINITION

There are mixed opinions in terms of what constitutes a superfood but many experts will agree that they

are effectively foods that are very high in nutritional properties.

"When a particular food delivers a remarkable and unusual health benefit, it becomes a superfood in my mind. For example, did you know that salmon roe contains a specific type of omega 3 fatty acids (phosphatidylcholine), which can more easily cross the blood-brain barrier in prenatal development, encouraging healthy brain development? This surely classifies salmon eggs as a superfood for pregnant mothers. The trouble is, superfoods do not always come with double blind placebo trials, and this, combined with overzealous marketing claims, creates a perfect storm between brands and traditional healthcare professionals," Welstead pointed out.

"There are many types of superfoods which align with the definition above. It becomes particularly interesting when a superfood can bring nutritional elements which would otherwise be hard to find in the regular diet of an individual. This also aligns with my views on what forms a supplement; it should deliver nutritional benefits which are otherwise lacking from the user's regular food intake, and in a convenient format. To me, the most interesting areas where superfoods can be of great aid are protein requirements, adrenal support, stress management and sleep improvements. And, of course, brain development."

Holmes added: "A 'superfood' is a food which naturally contains high amounts of beneficial nutrients. It tends to be plant foods which qualify for this and so would be considered to be foods high in phytonutrients, especially antioxidants. Superfoods should be nutrient-dense and offer benefit to the consumer. Some of these benefits may include helping to counter oxidative stress, reduce inflammation, support the immune system, boost energy and





support liver health and detoxification. However, these superfoods will have their best effect as part of a varied diet and lifestyle. Superfoods are, in some ways, the opposite of processed foods, providing nutrientrich sustenance, instead of nutrient-depleted calories.

"Superfoods can naturally boost micronutrient content of the diet. When these are consumed in preference to processed foods, superfoods can shift the balance favourably toward health benefit."

## **SPECIFIC USES**

The bulk of people could benefit from incorporating superfoods in their diet, unless they have the best diet possible, complete with clean, organic foods.

Holmes agreed, commenting: "One of the reasons for the popularity of superfoods is that, as real food, they taste great! The body recognises real food and responds positively to the nutrients provided. Many people today have a diet that is processed food-rich and nutrient-depleted. By choosing nutrient-dense foods like superfoods, individuals may be attempting to compensate for these nutrient-depleted processed foods. Most people today know that they should be consuming a minimum of five vegetables/fruit daily. Many do not even achieve this and don't come anywhere near achieving the higher recommended numbers (of 14-17) set by other governments. For some people, consuming superfoods may be a compensatory means of ensuring their recommended daily intake of fruit and veg."

Bodenham highlighted the ability of many superfoods to offer high antioxidants.

"There are more than 1,000 known phytochemicals, most of which are thought to have antioxidant activity, so they not only protect the plant but they may protect the human body too. Antioxidants neutralise potentially damaging free radicals, which are compounds that can impair cell function, damage DNA and even cause cell death. A diet rich in antioxidant foods is key to good health. Superfood fruits and vegetables will also generally provide a wide range of vitamins and minerals to support optimum health," she explained.

"Superfoods can naturally boost micronutrient content of the diet. When these are consumed in preference to processed foods, superfoods can shift the balance favourably toward health benefit."

Holmes believes certain parts of the population could particularly benefit, commenting: "Young people often eat more 'naughty' foods than they should, university students often choose nutrient-depleted foods and nutrient-depleting drinks, and older individuals often need more nutrients in their later years. Athletes, pregnant women, vegetarians and so many others may potentially benefit from the nutrient-boost superfoods can provide," she explained.

In terms of the superfoods you could recommend, Holmes turned her attention to botanicals.

"Polyphenol-rich foods like yerba maté make great superfoods. Green tea is a well-known polyphenol-rich superfood. Yerba maté, however, contains more polyphenols than green tea. Antioxidant-rich yerba maté (*Ilex paraguariensis*) from South America also contains vitamins, minerals, amino acids, plant sterols and saponins. Yerba maté is also a source of mateine (similar to caffeine but with more even effect) and this superfood, by virtue of its nutrient-rich profile with added mateine, makes an excellent tonic for those







with busy lifestyles," she explained.

"Maca (a member of the brassica family, Lepidium meyenii, also known as Peruvian ginseng) is another top-selling superfood. Maca is naturally difficult to digest raw. Some of the enzymes in raw maca are slightly toxic and inhibit digestion and assimilation. Scientifically, bioavailability can be addressed through gelatinization, an extrusion process of heating under pressure for a few seconds."

She also suggested green barley grass juice extract. "Nutrient-dense and balanced, with more than 70 food-state nutrients, vitamins, minerals, antioxidants, amino acids, enzymes and chlorophyll," Holmes explained, adding it contains super oxide dismutase (S.O.D.), a powerful free-radical scavenger.

Bodenham suggested chlorella as an excellent all rounder.

She advised: "Chlorella is a microscopic, singlecelled, freshwater green algae that has been extensively researched, including by NASA as a food for astronauts in space! Chlorella is a nutritional powerhouse, prized for its complete protein and B vitamin content. Additionally, it provides carbohydrates, enzymes, fibre, antioxidants, betacarotene, and minerals, such as calcium, magnesium, iron, zinc, sulphur, phosphorous, and iodine. Chlorella is a rich source of lutein, which is a protective antioxidant found in the eyes.

"With the highest chlorophyll level per gram of any plant, chlorella is also a potent cleanser of the blood and liver. Its rapid rate of reproduction is due to a complex known as Chlorella Growth Factor (CGF). CGF is thought to stimulate tissue repair, enhance cellular energy and production of proteins and enzymes, as well as protecting cells from toxins. It also encourages the growth of friendly bacteria in the intestines.

Chlorella's thick and tough outer cell wall binds with heavy metals to help clear them from the body, making it a potent detoxifying agent."

Berries boats potent health properties.

"A fruit like açaí (pronounces ah-sigh-ee) is vitaminrich, with high levels of anthocyanin, a flavonoid with antioxidant effect, also found in pomegranates and blueberries. The polyphenol and anthocyanidin content and antioxidant properties of these foods may account for their inclusion in healthy ageing protocols. Açaí contains at least five flavonoids at least one of which has recently been identified as a potent NF-kB inhibitor<sup>1</sup>; açaí has shown ability to reduce pain which may be due to anti-inflammatory properties. Choose acaí products with stated polyphenol content to ensure antioxidant quality," Holmes advised.

"Açaí berries also contain phytosterols and healthy fats (omega 3, 6 and 9) and a recent study (2017) shows this superfood may favourably affect HDL metabolism and antioxidant defence so may have beneficial effect re atherosclerosis3."

She continued: "Camu-camu is the large berry of Myricaria dubia from the Amazon rainforest basin and is exceedingly high in vitamin C, as well as being rich in anthocyanidins, catechins, ellagic acid and rutin; these phytonutrients work synergistically with vitamin C and optimise absorption. Camu-camu is also rich in carotenoids, including lutein, beta-carotene and zeaxanthin. As a food source of vitamin C, the superfood camu-camu is gentle on the stomach, highly bioavailable and optimally absorbed."

Welstead turned the attention towards protein, commenting: "Organic whey protein is perhaps my number one favourite superfood of all time. It is the richest and most convenient source of protein, and also perhaps the single best source of bioavailable



tryptophan – a great aid for anyone suffering from poor sleep. Next, I would look at adaptogenic herbs to help with stress and anxiety – a huge problem in today's lifestyles, ashwaganda, rhodiola, bacopa, being some of my favourites. And, of course, I would not overlook the humble blueberry, it's an excellent reminder that not all superfoods come from faraway lands."

And don't forget astaxanthin

"Astaxanthin is a colourful pigment found in microalgae, *Haematococcus pluvialis* being the richest source. Astaxanthin has potent antioxidant properties, protecting the body against free radical damage. Its ability to cross the blood-retinal barrier and the bloodbrain barrier give it significant potential for protecting the eyes and the brain, but its benefits are extensive and it is also used to support the heart, skin and the body's immune response," Bodenham advised.

She also turned her attention to the potential of green tea.

"The catechin polyphenols in green tea have potent antioxidant activity, protecting cells from free radical damage and supporting the body's own antioxidant defence systems. A particular type of catechin, called epigallocatechin gallate, may also help the body make its own antioxidant enzymes," she explained, adding: "A study published in the *American Journal of Clinical Nutrition* also suggests that green tea extract might be useful for the heart health of post-menopausal women as it appears to have blood lipid lowering properties.

"Additionally, combined results from a human supplementation trial and a laboratory study suggest that drinking green tea every day may protect against "I believe we will see more teas and tea combinations as well as superfood powders for easy adding to smoothies and recipes. We are already seeing a wealth of recipes for using these 'new foods."

damage at a genetic level. The study, published in the *British Journal of Nutrition*, adds to an ever-growing body of science supporting the potential benefits of green tea and the antioxidant compounds it contains. The analysis showed that four weeks of drinking green tea reduced the level of DNA damage by 20 per cent."

#### THE FUTURE

Superfoods have been around in their present 'fashionable' form, as in they are packaged as such, for quite some time, and the trend shows no sign of slowing. And by all accounts, there is much in the way of innovation.

Holmes believes there will be more innovation to make it easier for people to consume superfoods.

"I believe we will see more teas and tea combinations as well as superfood powders for easy adding to smoothies and recipes. We are already seeing a wealth of recipes for using these 'new foods'; many of these recipes facilitate superfoods as 'fastfoods', quick means of using nutrient-rich foods every day.

"I believe we will also see superfoods more often making headlines. Superfoods promote themselves, but a little help from celebrity chefs, footballers (as happened with their use of yerba maté tea), and others doesn't hurt!"

Various superfoods are increasingly being subject to study, such is their growing popularity.

Discussing the most recent work, Holmes advised: "A 2018 study in *Oxidative Medicine and Cellular Longevity* found preventive and therapeutic roles of barley grass for chronic diseases calling it 'one of the best functional foods for preventive chronic diseases and the best raw material of (the) modern diet'<sup>4</sup>. This study confirms benefit of flavonoids, SOD, chlorophyll and many other beneficial constituents of green barley grass and their inclusion especially for healthy ageing.

"A 2018 study of Brazilian wild fruits looked at the nutritional and functional characteristics of Brazilian berries compared to temperate berries and found these 'constitute an important innovation domain for the food industry due to their positive health effects' 5. Camu-camu is discussed in this study for its various health benefits including elevated levels of vitamin C, high antioxidant content and its 'neutralising properties of reactive species related to anti-obesogenic, hypolipidemic, anti-inflammatory, anti-genotoxic and neuroprotective effects' through a variety of named in vitro and in vivo experiments and human trials."

She continued: "Açaí is also discussed in this 2018 study of Brazilian wild fruits. The nutrient composition and antioxidant activity of omega-rich, anthocyaninrich açaí is highlighted along with its ability to confer 'protection against oxidative stress related to the antioxidant, anti-inflammatory, anti-lipidaemic, hypocholesterolemic and anti-cancer activities'<sup>6</sup>."







# Championing nutritional excellence

We are delighted to reveal all those products in the running for a *Nutrition I-Mag* Product Award – now, it's up to you.

t's been a year of exciting innovation in the world of nutritional therapy, and that is what *Nutrition I-Mag* is here to celebrate.

Each winter, we host our annual Product Awards, which are a celebration of all the incredible products in the marketplace, the products you recommend to your clients to help them in their health and wellness goals.

Over the following pages, you can discover all the products that are seeking your votes in this year's awards, across a variety of categories. And then it is over to you, our readers – we are asking you to cast your vote; whether you really like the brand and what it stands for, a specific product has made a huge impact on a client, or you have found it especially innovative, we want to hear from you.

Simply log onto www.nutritionimag.co.uk/awards to cast your vote or click on the link on the right. We look forward to revealing the winners in our January/February issue.

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#### **BEST ALTERNATIVE PRODUCT**

**Lepicol** 3 in 1 high fibre formulation

Hifas da Terra Mico-Leo

Rio Health Green Magma® Organic Barley Grass Juice Extract

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Nutrigold CBD Oil

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#### **BEST VMS**

**Bio-Kult** Advanced Multi-strain formulation

Higher Nature Keep Sharp

**Organic Traditions** Ashwagandha Dual Extract



#### **BEST ALTERNATIVE PRODUCT**



## Love Lepicol – 3 in I high fibre formulation

Fibre plays a number of important roles in digestion, helping form stools, remove toxins and provide a food source for beneficial species of bacteria in the gut. A low fibre diet can starve our friendly bacteria, allowing more pathogenic strains to thrive. Those suffering with bloating and other digestive symptoms are often found to have dysbiosis. Increasing fruit and vegetable intake and taking a gentle fibre supplement such as Lepicol, a 3 in 1 combination of psyllium husk fibre which contributes to the maintenance of normal bowel transit, 5 live bacterial strains to help rebalance gut microflora and prebiotic, inulin, is therefore recommended.

For further information please call 01460 243230 or visit www.lepicol.com



# Lion's mane holds the key to nerve regeneration in Hifas da Terra's Mico-Leo

The outstanding power of Lion's Mane unlocks the potential of healthy brain function, cognitive ability and nerve tissue regeneration. MICO-LEO harnesses potent therapeutic levels of Lion's mane extract in one of the best supplements to support the entire nervous system. With 495mg of certified organic lion's mane extract per capsule the concentration of Mico-Leo has proven actions to benefit neurodegenerative pathologies such as Alzheimer's, Parkinson's, Multiple Sclerosis, Senile Dementia as well as digestive disorders Chron's Disease and Ulcerative Colitis.

For more information please contact health@hifasdaterra.com



# **Green Magma® Organic Barley Grass Juice Extract**

Contains more then 70 nutrients including vitamins, minerals and amino acids. Green Magma® also contains enzymes including Superoxide Dismutase (S.O.D.) and provides high levels of chlorophyll and flavonoids, including 2"-0-GIV—a potent antioxidant. Young barley is 'one of the most nutritionally balanced foods' according to Dr Yoshihide Hagiwara who developed the unique juice-extraction and spray-dry process used for Green Magma®. This ensures beneficial nutrients and delicate enzymes are released from the indigestible plant fibre—keeping the enzymes active. Available as Extract Powder (80, 150 or 300 grams), as a 10-day Trial Pack with Shaker, and as 250 tablets.

For further information please visit www.riohealth.co.uk



# **BEST ALTERNATIVE PRODUCT**

#### **BEST NEW PRODUCT**



#### **Nutrigold CBD Oil**

It's been called the health revolution of 2018! Organically grown raw CBD oil is our exciting new natural plant-based product containing 500mg of the extraordinary phytocannabinoid cannabidiol (CBD), as well as many other beneficial phytonutrients. Our CBD oil is from the Cannabis Sativa L. plant, grown legally in the UK, which undergoes extraction techniques leaving a raw undiluted oil as Mother Nature intended and with less than 0.05% THC, to ensure legality and safety of this product.

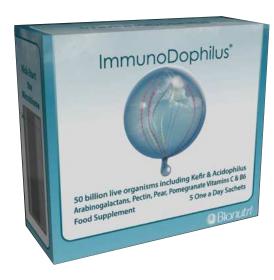
For more information please contact customerservices@nutrigold.co.uk; www.nutrigold.co.uk.



#### **Ultra Probioplex<sup>™</sup> Plus**

Ultra Probioplex™ Plus is among the highest strength live bacteria supplements on the market that has been especially formulated for daily support of functional bowel issues. With a potent combination of 25 billion live bacteria, this formula contains extensively researched strains at levels that are scientifically validated to support a healthy gut. Ultra Probioplex™ Plus also contains blackberry extract for digestive comfort and 2.5mcg of vitamin D which contributes to the normal functioning of the immune system. This formula features ProtectAir technology to guarantee the number of live bacteria and their quality without refrigeration until the expiry date.

For more information please visit www.nutriadvanced.co.uk



# Immunodophilus More than a pre and probiotic

The contribution and sphere of influence of the human microbiome to host biology cannot be overestimated. Nutritional factors such as soluble pectins, larch arabinogalactans and pear, when combined with friendly micro-organisms can have significant local and distal effects. The conversion of fermentable plant fibres by the microbiota lead to further by-products that have a significant role in re-establishing symbiosis and health on many levels. Immunodophilus provides exceptional nourishment beyond a standard probiotic for the gastrointestinal tract providing immune and other key factors. 5 Sachet pack £25.90

For more information please visit www.bionutri.co.uk



# **BEST NEW PRODUCT**

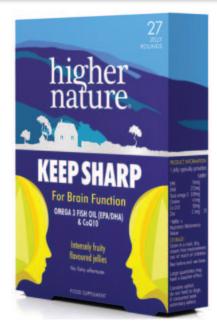
#### **BEST VMS PRODUCT**



#### Big in Bacteria

As an award-winning, scientifically developed, advanced multi-strain formulation; it's no wonder Bio-Kult Advanced is a favourite worldwide. 14 live bacterial cultures proven to survive the stomach's high acidity help to restore and rebalance gut microflora. It could be particularly helpful with conditions such as: Antibiotic Associated Diarrhoea; Traveller's Stomach; Leaky Gut Syndrome; Irritable Bowel Syndrome (IBS), and Inflammatory Bowel Disease (IBD). What's more, it's suitable for vegetarians and can be easily swallowed whole, or pulled apart and mixed with food or drink.

For further information please call 01460 243230 or visit www.bio-kult.com



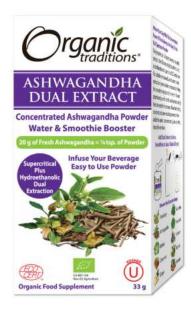
#### **Higher Nature to the rescue!**

Being prepared for the festive season stress and general winter blues is key to keeping a clear mind.

Keep Sharp from Higher Nature offers targeted support for the brain, especially as we age.

Nourish your brain with these tasty citrus flavour jellies formulated to support the brain. With emulsified omega 3 fish oil packed with DHA. Also contains choline, CoQ10, zinc and B vitamins. Easy to take and more readily absorbed by the body, these are the ideal choice for anyone concerned about their brain as they age.

For further information please call 0808 178 8614 or visit www.highernature.com



#### **Organic Traditions**

Certified organic ashwagandha in a concentrated, potent and pure powder form: just ¼ tsp of powder is the equivalent of 20g of fresh herbs. Organic Traditions proprietary full spectrum process gently extracts the full array of phytonutrients using a combination of supercritical CO2 extraction (fat soluble compounds) and hydroethanolic extraction (water soluble compounds) offering the complete signature of the herb in its most potent and pure form. No harsh solvents or high heat are used in the process. The resulting powders are semisoluble and can be added to any drink or used to create a herbal infusion.

For more information, visit www.kinetic4health.co.uk









# EXPERTADVICE

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





Are additives and allergens in supplements a real concern, or is it marketing hype?

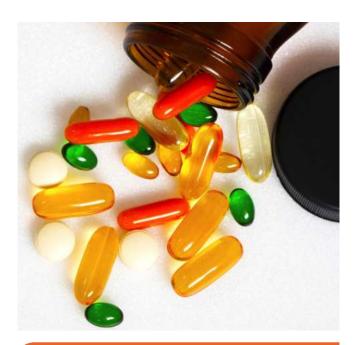
BEN BROWN ADVISED: Food additives and potential allergens are increasingly linked to important health problems, even though they are present in very small amounts. Perhaps overlooked is the presence of these in food supplements.

For additives, it's the mass-market products you need to watch. One of the biggest selling multivitamins in the UK contains over 15 different additives, including artificial red, yellow, and blue colours, sucrose, palm oil, polyethelyne glycol, talc, and titanium dioxide. Products in specialty health food stores and professional brands tend to be much better, but there are a number of potentially problematic additives to look out for:

- Carrageenan: An industrial thickener derived from seaweed, there have been concerns with carrageenan for some time. Recently, human clinical studies have found that even small amounts can impair blood glucose and increase inflammation in the gastrointestinal tract. Carrageenan is found in nutritional powders and protein shakes mostly.
- Titanium dioxide: A whitening agent, titanium dioxide has been linked to inflammation as well, and in a mouse model of colitis, exacerbated the disease. However, human studies are lacking so we don't yet know how relevant this research is. It's mostly found as a coating

on tablets.

- **Emulsifiers:** Increasingly, emulsifiers used in the pharmaceutical industry to enhance drug absorption are crossing over into herbs and supplements. Two common ones are Polysorbate-80 and Povidone. They can be found in CoQ10 and turmeric extracts amongst others, so read labels carefully.
- Sugar: It sounds crazy, but products containing sugar are often marketed as sugar free. Sugar can be disguised by many names, including sucrose, fructose, corn syrup, maple syrup, molasses, maltodextrin, agave nectar or syrup, evaporated cane juice, dextrose, coconut sugar, fruit juice concentrate, and many more. Become sugar savvy and don't believe that new types of sugar are good for you. Even if it has an attractive name such as coconut blossom sugar, it's still not much different to table sugar. Sugar is in powder and liquid products, but can also be used to coat tablets.
- Allergens: One to 10 per cent of adults and children in the UK have a hypersensitivity to foods, and up to 20 per cent experience some adverse reactions. Yeast, dairy, soy, gluten and seafood-derived products are all found in vitamin and mineral supplements. Furthermore, cross-contamination can occur in raw material and during manufacturing. Read labels carefully to identify any allergens you might be sensitive to. And make sure brands are testing for allergens or are certified gluten free. I have seen gluten contamination in probiotics, but you would not know if it was not tested.



#### THE EXPERT



Benjamin I. Brown ND is a naturopath, science writer and speaker. He is the author of The Digestive Health Solution, teaches nutritional medicine and speaks internationally, as well as contributing regularly to industry magazines and scientific journals.





As we approach the festive season, I see more clients complaining of digestive issues – what role does fibre play here and what recommendations should I be making?

**NATALIE LAMB EXPLAINED**: As the festive season approaches, so too do the party invites to celebrate with friends, family and work colleagues. Festive buffets consisting of finger foods are often high in refined carbohydrates, processed foods, alcohol and sweet treats, which can play havoc on the digestive system. Alcohol consumption appears to induce changes in the intestinal microbiota, increased gastrointestinal tract inflammation and intestinal hyper permeability.¹ Refined carbohydrates and sugars encourage the overgrowth of opportunistic bacteria, which could lead to dysbiosis, an alteration in the composition of the microbiota² and subsequent symptoms of bloating, indigestion and/or hard or loose stools.

The consumption of high fibre plant foods is known to assist in healthy bowel movements, by providing bulk to stools and as a food source for good bacteria in the colon. Healthy digestive function and regular removal of waste products and toxins could help your clients feel lighter and more energised in the run up to the hectic Christmas period. Fibre is often removed from processed foods to improve shelf life and freezing. Eating refined carbohydrates low in fibre but high in sugar can fill us up without providing us with much fibre or health promoting nutrients.

Try and encourage clients to opt for meal choices that have some vegetables in. Dietary fibre is found in fruits, salads and vegetables (higher when raw or lightly steamed), and in the cell walls of whole grains (oats, quinoa, brown rice, millet, bulgur wheat, buckwheat, rye,

spelt, bran), legumes (beans, peas and lentils), and nuts and seeds. Plus, prebiotic foods such as onions, garlic, artichokes, leeks and chicory feed the beneficial bacteria that are believed to be helpful to digestion. Festive foods rich in fibre are broccoli, Brussel sprouts and cabbage. Try steaming them or lightly sautéing with butter, chestnuts and sage.

For those that need additional fibre, psyllium has the advantage of being much gentler than some common fibres (such as wheat bran) that can be irritating to a sensitive bowel.<sup>3</sup> Psyllium has been shown to soften stools by increasing water content far more than other common fibres.<sup>4</sup> It forms a soft gel, which eases the stool along the lower digestive tract and encourages natural peristalsis (contraction of the smooth muscles to propel contents through the digestive tract).

#### THE EXPERT



Natalie Lamb Dip NT mBANT is a qualified Nutritional Therapist, who studied a three-year diploma in Nutritional Therapy at the College of Naturopathic Medicine (CNM) and is a member of The British Association of Nutritional Therapists (BANT). Natalie saw

clients in a private clinic in London for two years before joining Probiotics International (Protexin), manufacturers of Bio-Kult and Lepicol ranges.





# Q

#### What long-term effects can prolonged stress have on various aspects of heath?

JOE WELSTEAD SUGGESTED: This is a fascinating topic, not only because of the terrible impacts stress can have, but also because of its prevalence in modern lives. Let's first be clear that in this context, we define stress as long-term lifestyle and environmental factors, rather than acute pain or trauma.

What fits inside this definition can vary widely from one individual to the next. The source of stress for a single, working parent, might seem different to a CEO's stress of running a large corporation – but our bodies do not discriminate sources of stress. We respond in the same fight-or-flight way, fuelled by cortisol and adrenaline.

Chronic stress and the overreliance on our natural stressresponse system is linked to a number of health issues. These include diagnosable conditions, such as depression, digestive issues, and heart disease. But chronic stress is also linked to problems which are harder to grasp; weight gain, sleep disturbances, memory and concentration impairment.

I am particularly interested in the impact chronic stress can have on our cognitive performance.

In the short-term, stressful situations can lead to a drop in cognitive performance (**study**). That's why we need to practice so much before giving an important presentation, even when we know the topic perfectly. Think of these incidents as dots on a big graph of your life; each dot on its own seems isolated, but together they create a trend. Without addressing our response to stressful situations and better managing them, we are at risk of creating a

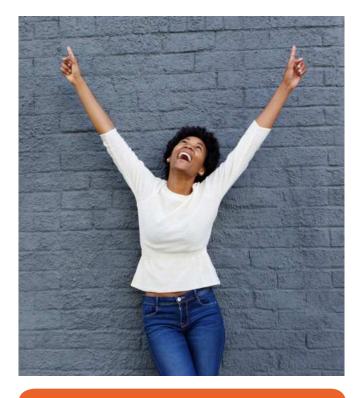
pattern of underperformance, exacerbating our feelings of stress in the long-term and abusing our stress-response system.

In the workplace context, chronic stress is linked to the blunting of the reactivity of our autonomic nervous system. Aside from the more commonly diagnosed issues mentioned, this blunting of our natural response leads to constantly elevated cortisol levels and an ongoing impairment of cognitive performance, shown particularly in male executives (study).

If we do not alleviate environmental stress in the workplace, we are at risk of reduced performance, poor decision-making and irritable moods.

What can we do to attenuate the impact of chronic sleep on our mental fitness and our decision-making capacities? Here are my top five recommendations for improved performance at work:

- **Prioritise sleep over stimulants:** Caffeine does not make up for sleep deprivation **(study)**.
- **Hydrate:** Our brain is made of 80 per cent water; just a three per cent dip in hydration will lead to mood swings and brain fog.
- Eat plenty of **vitamin C** rich foods to assist the liver in processing cortisol.
- Top up your **magnesium levels** to 400mg/day to improve your natural stress response **(study)**.
- Try a **nootropic supplement** containing L-Tyrosine and high doses of methylated B-vitamins for improved dopamine response and sustained mental energy levels.



#### THE EXPERT



Former international swimmer, Joe Welstead is a performance expert and cofounder of Motion Nutrition. Joe and his team of neuroscientists develop nootropic supplements helping to improve decisionmaking, memory recall and mental performance under stress.

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# WHAT IS IRON, AND WHY DO WE NEED IT?

Nutrition expert, **Greg Weatherhead**, examines the importance of iron, and why so many clients could be lacking this essential mineral.

ron is an essential element our bodies require to create red blood cells, it is a component of haemoglobin, which carries oxygen from the lungs, transporting it throughout the body, and without enough iron, the body cannot make enough healthy oxygen-carrying red blood cells. This element is also required for numerous cellular metabolic functions, however, it can be toxic when presented in an abundance, therefore, tight regulations are required to avoid iron deficiency or iron overload.

The adult body contains between 3g-4g of iron, with the usual western diet containing 7mg of iron per 1,000kcal, however, only 1mg-2mg of this iron is absorbed by the body each day. There is no physiologic mechanism for iron excretion, with only 1mg-2mg of iron being lost each day due to the shedding of cells. Women, however, also lose around 0.006mg of iron per kilogram per day during menstruation. Consequently, the iron lost and iron gained is normally in balance.

The human diet contains two different forms of iron, these are heme iron and non-heme iron. Heme iron is highly absorbed and is primarily derived from meat products, whereas non-heme iron, which is found in cereals, beans and some vegetables, has poor absorption levels.

Heme compounds, such as haemoglobin and myoglobin, make up approximately 70 per cent of the body's iron, and these compounds are then utilised as follows:

- 29 per cent is stored as ferritin and hemosiderin.
- Less than one per cent is incorporated into heme-containing enzymes.
- Less than 0.2 per cent circulates in the plasma bound to transferrin.

It is possible for the body to increase intestinal iron absorption depending on how much iron it needs, therefore, when more iron is being lost than it is absorbing, stores become depleted and iron deficiency develops. A continual process like this results in iron deficiency anaemia.

The World Health Organization defines anaemia as blood haemoglobin values of less than 7.7 mmol/l (13 g/dl) in men and 7.4 mmol/l (12 g/dl) in women and is the most common cause of anaemia in the world. This form of anaemia occurs due to a lack of sufficient iron and thus a decrease in the amount of haemoglobin available to form normal red blood cells.







Iron deficiency is the top nutritional deficiency in the world, with as many as 80 per cent of people not having enough iron in their bodies.

In the UK alone, iron deficiency is prevalent and according to the latest figures from the Scientific Advisory Committee on Nutrition Iron and Health review, those most at risk include women aged 35-49, girls aged 15-18, toddlers aged one-two and men aged 65 and over.

What's more, a 2016 study in medical journal, *The Lancet* suggests a third of the population have anaemia, so their iron deficiency is at critically low levels.

#### **CAUSES OF DEFICIENCY**

Iron deficiency anaemia is usually caused by an inadequate intake of iron, chronic blood loss, or a combination of both. The most common cause of iron deficiency anaemia in premenopausal women is excessive menstruation.

In developing countries, the primary cause of iron deficiency anaemia is low iron bioavailability, however, in developed countries, blood loss and low iron absorption are the most likely reasons for iron deficiency. This decreased iron absorption may be the result of atrophic gastritis or malabsorption syndromes, such as coeliac disease.

The soaring rise in popularity of vegan and plant-based diets is another key factor behind why more and more people are finding themselves nutrient deficient. As previously mentioned, the most absorbable form of iron is found in meat products, which means those with specialist diets are more at risk of developing iron deficiency.

What's more, the amount of processed foods we consume means that the number of vitamins and minerals under-represented or omitted from our diet is on the increase.

Typically, hemodynamically stable patients with iron deficiency anaemia are prescribed oral iron therapy.

#### **SYMPTOMS TO WATCH FOR**

Iron is essential to a vast number of processes within the body, meaning that the symptoms of deficiency can manifest themselves in a number of different ways. Lack of energy, pallor and some mood symptoms might seem like obvious signs, but some are far less so.

One of the strangest signs of iron deficiency is the compulsion to eat non-food items, ranging from ice cubes to dirt and plaster, a condition call pica, although, it's not understood how iron deficiency causes this behaviour.

The most common signs of deficiency include tiredness and fatigue, pallor, shortness of breath and heart palpitations. However, other symptoms can include headaches and dizziness, restless legs, dry hair or skin and soreness in the mouth.

#### THE NEED FOR SUPPLEMENTATION

There are two categories of iron supplements; those which contain the ferrous form of iron and those which contain the ferric form of iron.

Ferric iron is the oxidised form of iron, which makes it less reactive. This means it is less likely than ferrous iron to act as a free radical and damage the cells once within the body. Ferrous forms of iron are also known to cause more side effects than the ferric forms of this compound.

For first-line therapy, oral iron supplements are desirable because they are safe, cheap and restore the balance of iron effectively. The traditional tablet or capsule form of iron supplementation is, however, limited by gastrointestinal side effects. This is because iron is hard on the digestive tract and only a fraction of the iron consumed will be absorbed, leaving the remaining iron to sit in the gut and cause irritation. These side effects can include abdominal discomfort, nausea, vomiting and constipation. Consequently, compliance with iron supplements is notoriously poor.

To avoid such side effects, enteric-coated and delayed-release

iron supplements were developed as they are associated with having fewer side effects, however, they have a lower level of absorption.

#### THE SOLUTION TO INGESTED SUPPLEMENTS

With the need for an easily absorbable, great tasting iron supplement growing, there are alternatives such as oral sprays appearing on the market, which offer a solution to the digestive discomfort and poor absorption experienced from traditionally ingested iron supplements.

An intra-oral spray is an effective method of delivering iron, amongst other nutrients, directly into the bloodstream rather than relying on primary processing by the digestive system, with absorption beginning immediately.

The use of ferric EDTA is backed up by a clinical trial, which demonstrated how a 5mg combination supplement using this form provided the same increase in haemoglobin concentration as a 10mg ferrous lactate supplement. Additionally, this ferric form of iron reduces the oxidative stress imposed on the body by the more reactive ferrous forms of iron.

Greg Weatherhead studied Nutrition at the University of Leeds before starting his career in the VMS industry, during which time he has worked both in manufacturing and for end brands. Greg has extensive experience in the development of innovative new product developments, as well as the management and design of nutritional clinical trials and PhDs. He is Nutritional Expert and NPD Manager at BetterYou.



# What are the benefits of being a Cytoplan practitioner?





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education e & events lit

literature



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- Access to the Natural Medicines Comprehensive Database
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# I-Mag giveaways

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



#### GREEN MAGMA

Containing more then 70 nutrients, including vitamins, minerals and amino acids, Green Magma also contains enzymes, including



superoxide dismutase (S.O.D.) and provides high levels of chlorophyll and flavonoids, including 2"-0-GIV, a potent antioxidant. Young barley is one of the most nutritionally balanced foods, according to Dr Yoshihide Hagiwara, who developed the unique juice extraction and spray-dry process used for Green Magma. This ensures beneficial nutrients and delicate enzymes are released from the indigestible plant fibre, keeping the enzymes active.

Č I:Win: We have 10 10-day trial packs to give away.

#### **BIOTTA JUICES**

Only the best organic fruit and vegetables make their way into Biotta bottles. The juices are unique in that they go through a lacto-fermentation process, they are 100 per cent natural, 100 per cent organic, with no added sugar. We have five cases of Biotta Purple Carrot juice up for grabs, each case containing six 500ml bottles and worth £27. Purple carrot juice is a good source of vitamin A, which contributes to the maintenance of normal vision, making this juice great for the eyes!

Tiwin: We have five cases to give away.



#### **G&G'S KIDS ORGANIC RAINBOW FOOD**

Balanced for the dietary requirements of a child and free from any additives, Kids Rainbow Food is a rich, wholefood blend of organic fruits and vegetable extracts, such as baobab, acerola, guava, kale and beetroot, blended with probiotics, and nothing else. This supplement is vegan, wholefood, gluten free and dairy free.

Tiwin: We have five to give away.

# ent is

#### MANUKA HEALTH SNAP PACK

Pioneers of the MGO rating, Manuka Health is the leader in manuka honey and propolis science. Its 'on the go' pack is a convenient and mess-free way to get a boost of the natural goodness of manuka honey, on-the-go. The soothing lozenges combine premium New Zealand manuka honey with the fruity taste of blackcurrant and an extra boost of vitamin C. The Snap Packs are an easy way to get the natural boost of pure manuka honey, on-the-go.

🖰 I:Win: We have five packs to give away.



#### NUTRI ADVANCED ULTRA PROBIOPLEX PLUS

Ultra Probioplex Plus is among the highest strength live bacteria supplement on the market that has been especially formulated for daily support of functional bowel issues. With a potent combination of 25bn live bacteria, this formula contains extensively researched strains at levels that are scientifically validated to support a healthy gut.

Ultra Probioplex Plus also contains blackberry extract for digestive comfort and 2.5mcg of vitamin D, which contributes to the normal functioning of the immune system.

Č I:Win: We have 20 30-capsule packs to give away.





# Rio Health – strengthening its practitioner roots

Fair trade policies and sustainable ingredient sourcing are the cornerstones of the Rio Health philosophy, and here, the leading practitioner supplier discusses its future focus.

io Health is a company whose values and aims are ideally aligned to those of Nutritional Therapists; by way of example, its ethos has always been around using natural ingredients, minimising the use of additives, in sourcing ingredients responsibly and with due care and attention for the whole supply chain, right from the source.

It is because of these factors – and many more – that Rio Health has become such a trusted and recognised name within the world of nutritional therapy. And, with a number of new developments ahead, the company is ensuring it doesn't stand still.

Rose Holmes, Nutritionist, BSc, Dip.ION, PGCE, MBANT, is Rio Health's Education and Training Manager and commented: "We aim to promote the building of a community of practitioners that share our company values; we do this by sharing scientific research and our learning resources about product ingredients and creating online communities for practitioners to discuss and share their experiences and protocols.

"At Rio Health, we are keen to provide practitioners with the supplements they want and need, and we welcome input from individual practitioners regarding single and combination botanical products they would like to see available."

#### **SOUTH AMERICAN ROOTS**

Rio Health started life in 1986 as a company importing teas with botanicals from South America, and powder (for teas and encapsulated supplements). Originally being called Rio Trading, last year, the company was renamed Rio Health to better represent its product portfolio.

"The founding members travelled to the Amazon, in Brazil, where they established links with indigenous people and created a trading partnership, which helped the local people, whilst allowing the first importation of a variety of South American botanicals," Rose explained. "In fact, the company was the first to import *Tabebuia impetiginosa* (Pau d'Arco, aka Lapacho), *Pfaffia paniculata*, (Suma, aka Brazilian ginseng) and *Paullinia cupana* (Guaraná) to the UK. Rio Trading's mission was to bring some of the wonderful natural healing plants from South America to Europe and the rest of the world."

One of the key elements was in relation to fair trade, where the founders negotiated fair trade prices with growers and ensured ingredients come from sustainable sources.

"Our long-standing relationship with our supplier in Brazil aids facilitation of this," Rose added.







#### **PRIDE IN PRACTITIONERS**

Rio Health is a company that invests much time and resource into its practitioner business, and there are new developments ahead to further support them. The most recent is with regard to learning opportunities, where practitioners at all stages of their career are encouraged to register through the new practitionerdedicated website.

"Rio Health aims to share with our registered practitioners knowledge about our ingredients and product ranges and our expertise on immune health, detoxification support and chronic conditions, particularly Lyme disease. The new practitionerdedicated website facilitates this sharing of this extensive knowledge and expertise," Rose advised.

"Not only does the new website facilitate practitioner ordering at their special discounted rates, it also provides resources and learning opportunities via scientific references, webinars and other documents. It is planned to offer additional services to practitioners, including a rewards scheme to facilitate practitioner recommendations to clients. Suggested protocol information is contained within webinars and this may be expanded upon in the coming years."

The website currently features three webinars/presentations, with plans to post another five in the coming months.

And Rose continued: "Practitioners benefit by having an easy and trusted resource to aid determination of client protocol, expand knowledge and receive their special discounted

purchase rates. We warmly welcome practitioners with a variety of expertise as well as students (who can upgrade once fully qualified). We also invite all practitioners into our online community where we encourage them to share health and nutrition information with one another."

#### **EXPANDING THE RANGE**

Rio Health has developed its product portfolio hugely in recent years, and now boasts a number of leading nutritional brands, two of which are key practitioner brands; NutraMedix is a range of high quality natural products to support health, particularly to address chronic conditions, while epigenar is a range of nutritional supplements which provide formulations to support multiple body systems.

Looking closer at NutraMedix, the extensive range incorporates vegan and gluten free liquid herbal supplements, which includes mainly sustainably sourced, wild-harvested South American botanical ingredients from Peru, which are derived from one of nature's richest and most remote sources. The whole range is the foundation of Dr Cowden's Support Program, and the products are designed to help defend against harmful organisms, support the adrenal system, and support the immune system, as well as to address Lyme disease and chronic conditions.

"The extensive product range includes a number or lesserknown, yet potent herbs, as well as more familiar plant extracts.



The range includes many anti-microbial and detoxification liquid herbal products. Notably within the range are Samento (TOA-Free cat's claw, broad-spectrum anti-microbial), Banderol (Otoba parvifolia, broad-spectrum antimicrobial), Takuna (Cecropia strigosa, potent anti-viral), Cumanda (Campsiandra angustifolia, potent antifungal), Burbur-Pinella (anti-inflammatory and detoxification support for liver, kidneys and lymphatic system) and Stevia (anti-microbial with anti-biofilm properties)," Rose pointed out.

Turning to epigenar, the name stems from the word 'epigenetics', which relates to how we can alter the expression of our genes through nutrients and lifestyle.

"Pronounced epi-ge-nar (e-pə-jə-nar'), it is a practitioner range designed to work on their own but also to complement the NutraMedix range in supporting the body's immune system, amongst other body systems," Rose added.

"Notably, within the range are Curcumin Forte, a micellised, highly bioavailable, high-strength curcumin with maximum uptake, validated by reputable research), Black Seed Oil (cold-pressed oil of Nigella sativa), Chinese Skullcap (liquid Scutellaria baicalensis, broad-spectrum anti-viral with other properties), Kalmegh (liquid Andrographis, immune support and adaptogen) and Gotu Kola (liquid Centella asiatica, cognitive support, circulatory support and other properties). The range also includes liquid Vitamin D3/K2, Glutathione HPU, ALZ (four botanicals in liquid form to support brain health), Blackcurrant







Seed Oil (parent essential oil, vegan source of omegas 3 and 6), and a range of liquid botanical supplements for chronic conditions, including Lyme disease: BART, BOR, CHLA, PARA and VIR."

COMPANY PROFILE

Other brands within the company portfolio includes Rio Amazon, a range of products on which Rio Health was founded; it is made up of unique South American botanicals, mainly from Brazil, provided as capsules, powders and teas. Popular products include Quebra Pedra (which translates to 'stone breaker', for liver and kidney support), Graviola (as leaf and as fruit, both high in antioxidants), Cat's Claw (for immune support and healthy joints), Camu-Camu (the highest vitamin C content of any fruit), Açaí (polyphenol-rich fruit) and Pau d'Arco (aka Lapacho, antifungal and immune support).

And the ranges are continually expanding, with new innovations recently including NutraMedix Maca and Teasel, epigenar Chinese Skullcap, Black Seed Oil and organic Clove Tincture, and Rio Amazon Taste the Tropics teas.

Finally, Rio Health also markets Silidyn, Himalaya and Green Food products (including organic Green Magma), as well as its parent company's Best Choice range, GoGo Guaraná and awardwinning Rio Rosa Mosqueta natural, vegan skincare.

There will be more too, with Rose explaining that more tinctures for epigenar are planned.

"At Rio Health, we look for growing trends. For example, we recently more than doubled our range of teas when we introduced our new Taste the Tropics range, combining some of the original nine tea ingredients, such as Graviola, Pau d'Arco and Yerba Maté, with others such as Açaí, Guaraná and Guava."

Organic is also an important focus for the company's brands, and Rose revealed: "Rio Health already provide many organic products and many products that contain some organic ingredients. We aim to increase the number of organic products and have recently added Organic Clove Oil to our range. This new epigenar product joins Organic Green Magma and Organic Matcha Tea and some of our Himalaya products. Our Rio Amazon Maca powder and Guaraná powder and capsules will also soon be organic."

#### **FOCUS ON LYME**

One area that Rio Health is especially well regarded for is both its knowledge and products in relation to Lyme disease.

Rose explained that Lyme has become such a chronic condition that there was such a demand for its products.

"In the West, immunity is compromised all the time by unhealthy dietary and lifestyle choices. This makes us all more susceptible to chronic conditions, such as Lyme disease. Unlike in other parts of the world, the West has relied heavily on prescription medication to combat illness, including Lyme disease. This reliance has led to antibiotic resistance and highlights the comparative safety and efficacy of botanical solutions for Lyme disease and other chronic conditions," she explained.

"In other parts of the world, where vector-borne diseases (for example, malaria) have traditionally been a problem, botanical solutions have been found to be effective. These same botanicals are proving to be effective in the West's vector-borne condition, Lyme disease. Many people have chronic conditions and incidence of Lyme disease is continuing to increase at an alarming rate. This is in part due to environmental conditions and climate change. But exacerbated by our increased susceptibility due to poor diet and lifestyle choices and resultant increased need for detoxification and propensity for compromised immune function."

She added that Rio Health boasts many botanicals in its natural armoury that support immune function and aid practitioners in supporting clients.







# **CPD DIRECTORY**

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

#### **BANT Supervision**

November 9 – Bury St Edmunds

CPD hours: BANT two hours Speakers: Fiona Mealing

Cost: £30

Website: https://bit.ly/2PppKEq

#### **BANT Supervision**

November 7 – Cobham, Surrey

CPD hours: BANT two hours Speakers: Emma Stiles

Cost: £30

#### **BANT Supervision**

November 7 – Radyr

CPD hours: BANT two hours Speakers: Beatrice Cutler

Cost: £30

### **BANT Local Network Meeting**

November 7 – Taunton

CPD hours: BANT two hours Speakers: Lucy Peel, Biomedica

Cost: £30

Website: https://bit.ly/2OfnpzA

#### **BANT Supervision**

November 12 – London

CPD hours: BANT two hours Speakers: Kate Delmar-Morgan

Cost: £30

Website: https://bit.ly/2OcyTUl

#### **BANT Supervision**

November 19 – online

November 21 – Tunbridge Wells November 21 – Shoreham-by-Sea

CPD hours: BANT two hours Speakers: Carmel Buckley

Cost: £30

Website: https://bit.ly/2IMuT6W

#### **BANT Supervision**

November 22 – Milton Keynes

CPD hours: BANT two hours Speakers: Felicia Jones

Cost: £30

Website: https://bit.ly/2OPgRXI

#### **BANT Supervision**

November 23 – Chesham

CPD hours: BANT two hours Speakers: Tracey Harper

Cost: £30

Website: https://bit.ly/2yrcYOv

#### **BANT Supervision**

November 26 – Widcombe

CPD hours: BANT two hours Speakers: Natalie Gillan

Cost: £30

#### **BANT Supervision**

November 27 – Edinburgh

CPD hours: BANT two hours Speakers: Sarah Stelling

Cost: £30

Website: https://bit.ly/2yboK0e





# FORTHCOMING WEBINARS

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

#### Potential of mushroom compounds as immunomodulators in cancer immunotherapy

Presented by Robert Rountree, MD Wednesday, November 14, 6.30pm-7.30pm

Cancer is a very complex group of related diseases characterised by unrestricted growth of undifferentiated cells that elude recognition by the immune system. Certain compounds found in medicinal mushrooms may restore health by helping the body protect against the development of cancer.

This presentation brings you a focused look at the mechanisms by which mushroom compounds may act as immunomodulators in cancer immunotherapy. Dr Rountree will review the immunology of cancer surveillance by the immune system, explaining how



immune surveillance is one of the most important mechanisms the body has for supporting cancer. Discussing how immune function declines with age, while the incidence of many cancers increases, Dr Rountree will expertly explain how mushrooms may enhance immune function in general and immune surveillance in particular. He will also present protocols for clinical practice in supporting active cancers.

This webinar will bring you the very latest understanding regarding the mechanism of action by which mushrooms exert their anti-cancer effects.

#### Protein rich diet, pH and pain signalling

Presented by Tanja Werner, Dr. rer. nat. (Doctor of Natural Sciences) Tuesday, January 15, 6.30pm-7.30pm



It is now becoming clear that pH management plays an underlying role in many common complaints. Recent research demonstrates that pH imbalances will intensify pain syndromes, lead to poor bone health, and even increase cortisol secretion. With soaring rates of obesity and diabetes, it is clear our modern Western diet has failed us, with so many looking at alternatives.

However, the current diets purported to be healthy, such as high protein/low carb and Paleo-style, may be contributing to acid-alkaline imbalances, with far reaching health implications.

In this webinar you will:

- Discover emerging research on the role of acid-alkaline dysregulation as a driver of pain and inflammation.
- Understand why acid-base balance is vital for musculoskeletal health and pain management.
- Learn the latest research on the connection between dietary acid load and the increased risk for osteoporosis and diabetes.
- Review the evidence behind high protein/low carb diets in the context of our true 'paleo' ancestors.
- Gain strategies to assist in reducing pain and inflammation through pH regulation and mineral therapy.







# DELIGHTFUL VEGAN DELI

Tasty ideas from the people from Smith & Deli, described as the world's best vegan deli.









### ES



Shannon created this dish for a non-vegan chef friend who needed something vegan; Shannon's door is where all desperate, non-vegan chefs come knocking. This is her take on a khao soi curry. The brief for the dish was something that could stand on its own, side by side with a heavily meat-based menu at a heavily meat-based restaurant.

#### **INGREDIENTS:**

- 2tbsp coconut oil
- 1tsp curry powder
- 60ml (2fl oz/1/4 cup) vegan fish sauce
- 2tbsp soy sauce
- 1bsp salt
- 30g (1oz) palm sugar (jaggery) or brown sugar
- 2 x 482g (1lb 1oz) tins green jackfruit, rinsed and pulled apart
- 400ml (131/2 fl oz) coconut milk
- · 200ml (7fl oz) vegetable stock or water
- 6 kaffir lime leaves
- Vegetables of your choice, such as zucchini (courgette), carrot, baby corn, potato, snow peas (mangetout), bok choy (pak choy) – whatever's kicking around in your fridge
- · Juice of 1 lime, to garnish
- Large handful of coriander (cilantro) leaves, to garnish

- Large handful of Thai basil leaves, to garnish
- · Cooked rice or noodles, to serve

#### **CURRY PASTE:**

- 1/2 tsp fennel seeds
- 1½ tbsp coriander seeds
- 1/2 tsp cumin seeds
- · 2 green cardamom pods, seeds only
- 8 dried red chillies, soaked (seeds removed for a milder paste)
- 1 lemongrass stem, white part only
- 10g (1/4 oz) galangal
- 10g (1/4 oz) fresh turmeric
- 150g (5½ oz) shallot
- 40g (1½ oz) garlic cloves (approximately 3 cloves), peeled
- 20g (¾ oz) fresh ginger
- 1/2 bunch of coriander (cilantro) stalks
- 1tbsp vegan belacan (optional)

#### METHOD:

- 1 To make the curry paste, heat a frying pan over a medium heat and toast the fennel, coriander, cumin and cardamom seeds until fragrant, then blitz to a powder using a high-speed blender or mortar and pestle. Set aside.
- 2 Combine all the remaining ingredients in a blender and blitz to a paste. Add a tiny splash of water if needed to loosen the mixture. Add the powdered spices and blitz again until combined.
- **3** For the curry, heat the oil in a large saucepan over a medium-low heat, then add six tablespoons of the curry paste. Fry for a few minutes, or until it no longer smells raw.
- 4 Add the curry powder, fish sauce, soy sauce, salt and palm sugar and cook until the sugar has melted. Toss the jackfruit through the paste and cook for another few minutes, then stir in the coconut milk, stock and kaffir lime leaves.
- 5 Add the vegetables of your choice and bring to a gentle simmer. Once the vegetables are cooked, adjust the flavour with lime juice if needed and finish with the coriander and Thai basil. Serve with rice or noodles







#### Spaghetti squash and sausage

(Serves 2 as a main or 4-6 as a side dish)



For Australians, spaghetti squash is one of those weird veggies that seemingly came out of nowhere, but really, let's say one thing up front; we're not pretending it's like real spaghetti. If you feel like pasta, make pasta. If you're low-carb and want something yum, make this, but don't be fooled by the word spaghetti. This is ultimate cold-night food and surprisingly filling to boot. The combo of pesto, creamy wine sauce and sausage is perfection, but it's the strings of spaghetti squash that bring it all together. When you stuff the entire dish back inside the squash shell, cover it in cheese, bake it and eat all of it, it's even more perfect. For a mock-free version, skip the sausage and use extra broccoli instead.

#### **INGREDIENTS:**

- 1 (smallish) spaghetti squash
- 60ml (2fl oz/¼ cup) extra-virgin olive oil, plus extra for drizzling
- 1/2 fennel bulb, diced
- 1 brown onion, diced
- 2 vegan sausages of your choice; we prefer crumbled, but feel free to slice it into rounds
- · 2 garlic cloves, minced
- 1/2 tsp chilli flakes

- 125ml (4fl oz/1/2 cup) vegan white wine
- 125ml (4fl oz/1/2 cup) vegetable or chicken stock
- 2tbsp vegan cream cheese
- 50g (1¾ oz/½ cup) vegan parmesan, plus extra to garnish
- 2tbsp pesto
- 60g (2oz/1 cup) broccoli or broccolini, cut into florets and blanched

#### METHOD:

- 1 Preheat the oven to 180°C (350°F).
- 2 Cut the squash in half using a large, super-sharp knife and remove all the seeds. Drizzle with olive oil and season well with salt and pepper.
- 3 Transfer to a baking tray and roast, cut side up, for about 40 minutes until slightly golden and soft. Remove from the oven and leave to cool. Keep the oven on.
- 4 Heat the oil in a shallow casserole dish over a medium heat, then add the fennel, onion and a big pinch of salt and cook for about five minutes until softened. Add the sausage, garlic and chilli flakes and cook for about one minute, then deglaze the pan with the wine and simmer until reduced by half.
- 5 Stir in the stock, cream cheese, parmesan and pesto and cook over a low heat until the cream cheese has melted. Remove from the heat and set aside.
- 6 Run a spoon along the inside of the cooled squash halves and remove the flesh. You will see the way the squash runs with the grain. Use a fork to separate the strands (you can reserve the shells for serving, or just use a heatproof dish). Return the squash strands to the pan with the sauce, add the broccoli and gently stir to coat, then place the pan back over a low heat for a few minutes.
- 7 Transfer the squash mixture to the squash shells or a heatproof dish and sprinkle some extra parmesan on top. Bake for 10 minutes, or until you've achieved a golden crust.

**NOTE:** You can use this sauce with or without the spaghetti squash, or use regular spaghetti instead. It also makes a killer pizza topping or scroll filling.







#### Coconut jam slice (Makes 9-12, depending on your generosity)

Not just for nanas, although she'll be stoked if she's coming around for tea. You may even become her new favourite grandchild, especially if you use her home-made jam for this recipe; that's a double whammy! Coconut, biscuit and jam equals a definitive recipe for success. This recipe is the epitome of 'I'll just have one bite. No, maybe just one more bite. This is the last bite, I swear'. It'll be gone before you know it.

#### **INGREDIENTS:**

• 315g (11oz/1 cup) raspberry jam (or any jam you like)

#### TOPPING:

- 2tbsp No Egg combined with 7tbsp water
- 180g (61/2 oz/2 cups) shredded coconut
- 80g (2¾ oz/1/3 cup) caster (superfine) sugar

#### **BASE:**

- 150g (5½ oz/1 cup) plain (all-purpose) flour
- 1tbsp cocoa powder
- 65g (2oz/¾ cup) desiccated coconut
- 125g (41/2 oz/1/2 cup) vegan butter, melted
- 115g (4 oz/1/2 cup) caster (superfine) sugar

#### METHOD:

- 1 Preheat the oven to 180°C (350°F).
- **2** To make the topping, whisk the No Egg and water until frothy and well combined. Mix the coconut and sugar in a bowl and fold in the egg mixture until the coconut is covered and sticky.
- **3** For the base, mix together the flour and cocoa in a bowl. Add all the remaining ingredients and combine, using your hands, until the mixture comes together.
- 4 Press the base mixture into a lined 35 x 25cm (14 x 10in) brownie tin (or something similar) and bake for 15-20 minutes until slightly golden.
- 5 Remove from the oven and leave to cool for 10 minutes, then spread the jam over the surface and top with the coconut topping. Bake for a further 20-30 minutes until lightly golden brown. Allow to cool completely in the tin before slicing.











We did the maths; we've made nearly 150 types of brownies since we opened our doors in June 2015. With a new flavour each week, our pastry elves work mega hard to come up with new flavour combos. No recipes, no guidebooks, just pure, spontaneous, fun decision-making. The base stays the same, but the flavour always changes. Sometimes it's a bit crazy, but sometimes people like crazy. And people definitely love brownies. And we especially love that these cater for our gluten free friends. Rejoice! There's something nice and baked for you!

#### INGREDIENTS:

- 185g (6½ oz/¾ cup) vegan butter
- 125g (41/2 oz/1/2 cup) vegan plain yoghurt
- 1½ tsp vanilla
- 345g (12oz/11/2 cups) light brown sugar
- 225g (8oz/11/2 cups) gluten free flour

- 90g (3oz/3/4 cup) cocoa powder
- 1tsp baking powder
- ¼ tsp bicarbonate of soda (baking soda)
- 250ml (81/2 fl oz/1 cup) unsweetened soy milk
- 175g (6oz/1 cup) vegan chocolate chips

#### METHOD:

- 1 Preheat the oven to 170°C (340°F).
- 2 Combine the butter, yoghurt, vanilla and brown sugar in the bowl of a freestanding electric mixer fitted with the paddle attachment and cream for about three minutes until very light and fluffy.
- 3 In a separate bowl, mix together the flour, cocoa, baking powder and bicarb soda. Add to the butter mixture and slowly beat until well combined. Slowly pour in the soy milk, while still beating, until fully combined. Fold in the chocolate chips, then pour the batter into a greased 27 x 27cm (103/4 x 103/4in) brownie tin.
- 4 Bake for approximately 45 minutes. Keep an eye on it, as it may take a little less or more time. Your brownies should still be a little jiggly in the middle. Cool completely in the tin before turning out and slicing.



**Smith & Deli-cious** by Shannon Martinez and Mo Wyse (Hardie Grant, £20) Photography © Bonnie Savage.





# New! Vitamin K2 Oral Spray

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