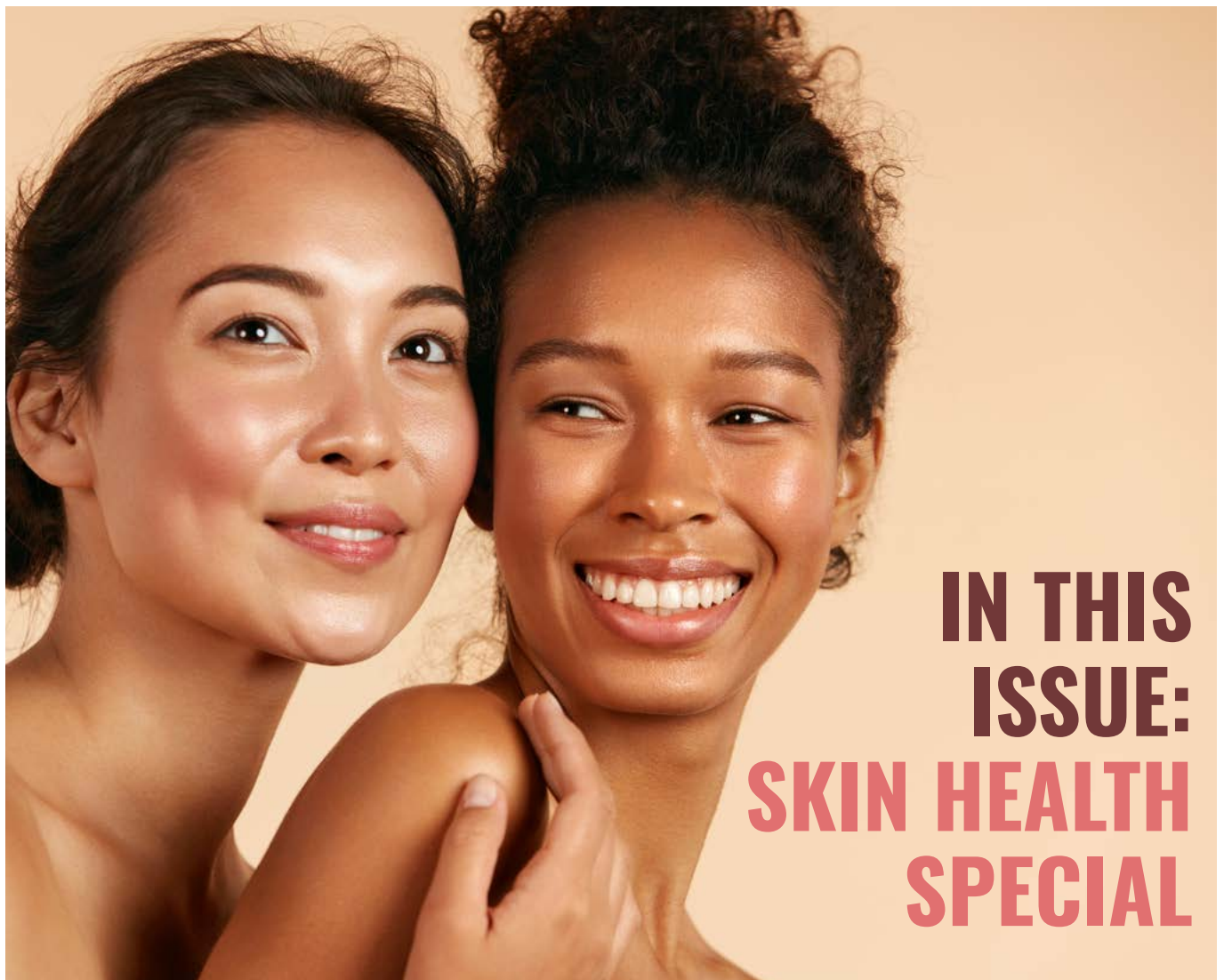




20TH ANNIVERSARY SPECIAL!

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- PSYCHOLOGY**
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THE PARASYMPATHETIC NERVOUS SYSTEM

Tracey Dennison explores the link between the parasympathetic nervous system and skin health

The parasympathetic nervous system is a complex beast and can be overwhelming to contemplate in its entirety. However, it is a critical factor to consider when looking to address skin health (and one that is often missed).

The parasympathetic nervous system is part of the autonomic nervous system and is, in part, responsible for the functionality of our cardiac function and sexual function and includes influencing eye function, lung function and digestion. In contrast to the sympathetic nervous system, which sends 'high alert' signals causing an increased heart rate, release of cortisol and a high-stress response, the parasympathetic nervous system supports the body to 'rest and digest'.

In order to improve overall health and wellbeing, it's important to nurture the function of the parasympathetic nervous system to reduce stress, manage inflammation and create an environment that supports calmness, anti-inflammation, protection, nutrient absorption and a healthy metabolism. When it comes to skin health, many influencing factors start in the gut. Where there are digestive problems, nutrient absorption can be diminished, and therefore, the body's ability to heal, protect and reduce inflammation will also be impeded.

The parasympathetic nervous system engages four of the 12 cranial nerves; however, it is the Vagus Nerve (cranial nerve number 10) which is the main connection between the brain and the stomach, forming connections with many

other vital organs en route. It is very much like the M1, the main communication system (motorway) connecting vital organs (major cities) from the north to the south of the body (Leeds to London). Much like the motorway, the whole system malfunctions if there is congestion, disruption or collisions.

Within the parasympathetic nervous system, this may present as; type 2 diabetes, constipation, tachycardia, arrhythmia, atrial fibrillation and gastroparesis. All of these conditions cause systemic stress and have a direct impact on the body's overall function, potentially resulting in sub-optimal absorption and increased inflammation, which will be clearly observed in skin condition, barrier function and overall skin integrity. Equally, the enteric nervous system (also known as the second brain) is increasingly becoming considered one of the most powerful biological systems containing over one hundred million neurons embedded in the walls of the gastrointestinal tract. The developing field of neurogastroenterology is identifying more and more brain-gut links and influences, which are being scientifically tested and researched. However, supporting evidence is very much apparent and exists within the realms of common sense. This can be evidenced by the lived experience of having a 'nervous stomach' (we all know the impact of psychological stress and diarrhoea!) Equally, how many migraine sufferers experience vomiting as one of their migraine symptoms? There are many, many other examples.

Optimal functioning

So how do we manage the enteric and parasympathetic nervous systems in order to yield the benefits of optimal nervous system functioning?

The skin itself is a great predictor of overall health; we can observe for evidence of infection, acne, and barrier breakdown, including fungal infection, rosacea, jaundice and anaemia, amongst many other issues. Skin conditions such as eczema and psoriasis may indicate inflammatory or autoimmune challenges elsewhere within the body. Ideally, we want to see healthy, hydrated, glowing skin with a protective microbiome. Healthy skin doesn't just rely on physical health, though. We know environmental factors such as sun exposure can cause significant skin damage, but what about psychological issues?

The psychological issues regarding skin health are often misunderstood or ignored. However, there is a huge psychological impact related to skin function and wellbeing. A recent survey from the British Skin Foundation (BSF) found that (from their respondents):

- 33% believed their appearance is important to their wellbeing
- 20% were unhappy with their skin at the time of the survey
- 25% had a skin condition which they believe affects their everyday life
- 26% felt their poor skin condition was a cause of embarrassment



The BSF study also found that poor skin caused anxiety and depression. However, we could also ask the question, do anxiety and depression cause poor skin? This could potentially be due to less motivation to follow a good routine, poor self-image, and complex issues possibly related to previous negative experiences. In relation to this, as we have explored already, the parasympathetic nervous system restores calmness to the digestive system, allowing optimal nutrient absorption. Here again, we see the need for a fully functioning Vagus Nerve and gut system.

When the enteric and/or parasympathetic nervous system is impaired, skin health deteriorates. Optimisation of this requires a fully holistic approach which is inclusive of psychological factors. This is very much where we need to engage with metaphysical concepts to calm, uplift and restore our nervous system responses.

So, what do we mean by metaphysical concepts? Firstly, this is not a new philosophy and can be related right back to string theory which was first hypothesised in 1943 by Werner Heisenberg. Much of what this relates to is the notion of vibration. The theory is that everything and everyone has a vibrational frequency. A high vibrational frequency is joyful, uplifting and calm.

In contrast, a low vibrational frequency is sluggish, negative and flat. As cognisant beings, we have some control over our vibration level and can take deliberate measures to raise our vibration. When we raise our vibration, we support improvement in our mental health; when we're feeling more positive from a mental health perspective, we calm our nervous system, and therefore the digestive system is optimised, allowing for optimal nutrient absorption, which in turn has a direct impact on physical health and skin health. Therefore, in order to optimise our physical health (including skin health), we need to master our mindset.

Those around us can sense the vibrations we emit. Have you ever been in the supermarket with someone behind you in the queue where you maybe haven't spoken or even made eye contact with them, but you can feel the negativity, animosity, irritation or anger radiating from this person? This is a low and negative vibration which can be sensed in our nervous system, and the resulting output

is transmitted throughout our bodies resulting in various forms of dis-ease. Conversely, a high vibration emits positive emotions such as appreciation, joy and gratitude. Again, this is transmitted across our nervous system, evoking calmness, positivity, improved mental health and therefore improved physical health.

It is within each individual's gift to tune into their higher vibrational self to achieve these benefits. Simple things such as singing, dancing or any exercise you enjoy are good. Music is extremely powerful and can be very impactful on mindset. Bringing joy into daily life is critical to raising vibrational output. This doesn't have to be a big event, but small things like singing, listening to uplifting music and movement are things everyone can do each day to raise their vibrational output.

This doesn't always happen easily, but learning how to feel good in the present moment is also really powerful for a positive mindset, which directly links to an overall state of healthfulness. Simple practices, such as making a conscious effort to be grateful for the good things that happen and appreciating positive influences, are extremely potent (but small and quick) tools to provide positivity and high vibrational output, which can directly influence the health of our parasympathetic and enteric nervous systems. This then causes those systems to function at a more optimal level which in turn has a direct impact on the gut and, therefore, skin health.

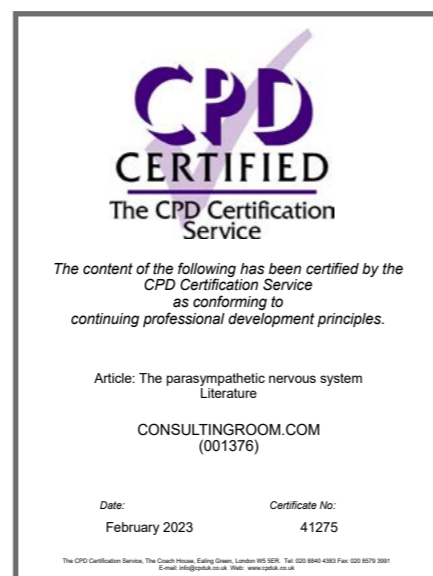
There are other ways we can support the gut too. Ensuring a healthy diet is the obvious one, and protection/restoring the gut microbiome is another. No one approach will cover all the bases, but in combination, it is possible to improve and restore balance to the whole system.

Treating the whole person, body, mind and spirit

When optimising skin or managing complex skin conditions (or indeed any systemic inflammation), due regard needs to be paid to the person as a whole; body, mind and spirit. All three aspects are linked, and each relies on the optimal functioning of the next to provide optimal skin health. It is my opinion that a whole-person approach is the best way to manage our patients in a meaningful and effective way. If we get it right, this



approach will not only benefit their skin but have a positive impact on many aspects of their health and quality of life.



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