



Trust Your Gut!



Nutritionist Fiona Tuck explains the link between gut and healthy skin and why not all supplements are created equal.

The skin is the largest organ of the body and one of the first places to show signs of nutrient depletion and internal imbalances. If we are not getting enough nutrients via the diet or if we are not absorbing nutrients well this may reflect on the skin. Redness, dilated capillaries, purple markings on the skin and even some types of pigmentation can all be signs of possible nutrient depletion.

The gut can also communicate with our skin and vice versa, this interplay is known as the skin-gut axis. A healthy gut helps keep pathogens, infections and inflammation at bay. You could say that our gut and our skin play similar roles, both are colonised by microorganisms designed to communicate with immune cells and inflammatory mediators to protect us from pathogens.

How to tell if there is an underlying gut issue

There are a number of sources of inflammation, including senescent cells, cellular debris, and increased pathogenic microbial burden. This may show in the skin in a multitude of ways such as skin sensitivity, redness, breakouts and even premature ageing. Inflammatory skin conditions such as eczema, rosacea and even autoimmune conditions such as psoriasis can be significantly improved by supporting the health of the gut. Looking after the health of the gut by feeding it the right nutrients is as important as wearing daily SPF.

At Vita-Sol we have an online stockist education programme that includes information on the importance of nutrigenomics, gut and liver health, nutrition

and how to recognise signs of internal imbalance when it comes to skin health. We also have a private fb group where we conduct regular fb live education sessions to keep therapists updated on the latest research whilst at the same time ensuring that our therapists work within their scope of practice.

Why prebiotics may be more beneficial than probiotics

Probiotics are live bacteria found in probiotic supplements and some foods such as kefir and sauerkraut. Contrary to popular belief, probiotics rarely colonise in the gut, but rather they interact with resident microbes on their journey through the gut. As they pass through the gut, they interact with gut cells, immune cells and food substances,

exerting their benefits. Research has shown that some specific probiotics may support digestive health and immune function, including reducing antibiotic-associated diarrhoea, improving resilience to infections and improving digestion of lactose. Other benefits include reducing eczema, as well as necrotising enterocolitis. Evidence is lacking however to support the use of daily probiotic supplementation for general health and well-being although including fermented foods in the diet is thought to be beneficial. There are over a 1000 different species of microbes that inhabit the gut and only a few exist as probiotic supplements. One third of our gut microbiota is common to most people while two thirds are specific to each of us. This means the gut microbiota is unique to each one of us much like a thumb print. We therefore all have differing needs when it comes to what probiotics may be beneficial. Most probiotics (except for a select group) are likely to degrade before they reach the intestines, an environment that supports their growth.

Most commonly produced probiotics are so fragile that approximately 90% of the bacteria will die before reaching the consumer. Also depending on the strain used some will be destroyed in the acidity environment of the intestinal tract. This is why high dose probiotic supplements or capsules are recommended by professionals to ensure that the probiotics that do survive are in high enough amounts to benefit the host.

In a review by the Scientific Journal Immunology and Cell Biology, commonly used probiotic bacteria, such as *Lactobacillus acidophilus*, *Bifidobacterium bifidum*, *longum*, and *Saccharomyces boulardii* were found to be too fragile to survive the rigours of the manufacturing process, heat and the acidity of the intestinal tract. When it comes to probiotics, for best results it is best to seek professional advice from a qualified nutritionist. They can recommend a product that contains the strain(s) of bacteria that have demonstrated the best evidence for the health or skin benefit you are seeking.

A prebiotic is a type of dietary fibre, however, not all fibre is prebiotic. To be classified as a prebiotic, the fibre must pass through the GI tract undigested and stimulate the growth or activity of beneficial bacteria in the large intestine. Prebiotics are a relatively new discovery but may be the most important, even more so

Prebiotic foods:

- Garlic, onion, leek, shallots, asparagus
- Chickpeas, lentils, soybeans
- Nectarines, white peaches, watermelon, grapefruit, dried fruit
- Barley, rye bread, couscous, oats
- Cashews, pistachios

than probiotics for our general health and well-being. Prebiotic benefits include gut microbiota modulation, improved nutrient absorption, possible protection against colon cancer, improved blood glucose and insulin regulation, protection against intestinal infections and reduced inflammation. The fermentation of the prebiotics by the gut microbiota produce short-chain fatty acids. These short chain fatty acids are required for healthy gut barrier integrity and function, modulation of glucose and lipid metabolism and help reduce inflammation and may also play a role in modulating the immune system all of which have a positive benefit on the health of the skin. Good sources of prebiotics include inulin, fructo-oligosaccharides (fructans, FOS) and galacto-oligosaccharides (GOS).

Including a wide variety of plant based foods in the diet is important for gut microbe diversity which is important for overall gut health. Current research from the world's largest microbiome study shows that we need to eat at least thirty different plant based foods a week which include fruits, vegetables, wholegrains, legumes, nuts and seeds for optimum gut health. At Vita-sol we use all natural prebiotic formulas

Factors that harm the microbiome of the skin:

- Over cleansing
 - Harsh synthetic ingredients – antimicrobials, harsh preservatives, SD alcohol, UV radiation
 - Chemical peels
- Upsetting the natural pH of the skin (ideally around pH 4.5 – 5.5)

that do not contain synthetic vitamins to maximise gut and skin health.

Why a healthy diet may not be enough

Including probiotics in the diet is not enough to restore a healthy gut. Whilst we know that there are benefits from eating probiotic or fermented foods if someone has weakened gut cell integrity or dysbiosis then simply increasing fermented foods will not be enough to restore a healthy gut. Increasing probiotics and fermented foods may actually temporarily worsen gut symptoms and trigger skin flare ups in some inflammatory skin conditions such as rosacea and eczema. For this reason it is important to restore gut integrity first. The gut epithelial cells are really mission control for the gut ecosystem and a healthy and robust gut needs a variety of nutrients to thrive. The following factors can increase gut permeability and may need to be reduced to help restore a healthy gut: Stress, alcohol, processed foods, high intake of saturated animal fat, Gliadin and gluten, hops extract (beer).

Is probiotic skincare beneficial?

When it comes to using actual probiotics in topical skincare there are limitations. The skin is colonised by microorganisms such as bacteria, fungi, viruses and mites. These microorganisms may have a role in communicating with the billions of T cells found in the skin and are part of our defence systems. We know that certain skin conditions such as acne and eczema may have an imbalance of certain bacteria and topical application of probiotics may be beneficial. We know that probiotics are live living microorganisms which are difficult if not impossible to keep alive in a skincare product. The application of topical skincare on the colonisation of these beneficial microorganisms is therefore limited. Probiotic fragments or 'post' biotics which are not live bacteria are able to communicate with living microbes to have an anti-inflammatory benefit on the skin and may therefore be beneficial. Topical application of anti-inflammatory ingredients and prebiotics ingredients that will help the beneficial microbes on the skin thrive may also be beneficial. There is more research that is needed but it is an extremely exciting area. Maintaining the microbiome of the skin is therefore important to keep the skin healthy. 🌿

VITA-SOL.COM