

SPONTANEOUS SELF-DEFENCE

Naturopath TARA THORNE explains what happens when your autoimmune system turns on you, and how to protect against your body's natural defences.

Our immune system is an incredibly complex and hugely important system that relies on healthy body processes in order to function properly. If stressed or overworked, this delicate yet powerful system can become weak and confused and start attacking otherwise benign substances in the assumption they're harmful. This can wreak havoc on our health, eventually giving rise to debilitating autoimmune disease, diseases in which the body attacks itself and destroys perfectly healthy tissue. Adequate nutrition as well as stress reduction techniques, exercise and sleep are important considerations in preventing autoimmune diseases from taking hold. If they're already causing issues, there are ways in which you can treat them naturally and efficiently using proper diet, nutritional supplements, botanicals and lifestyle strategies.

PSORIASIS

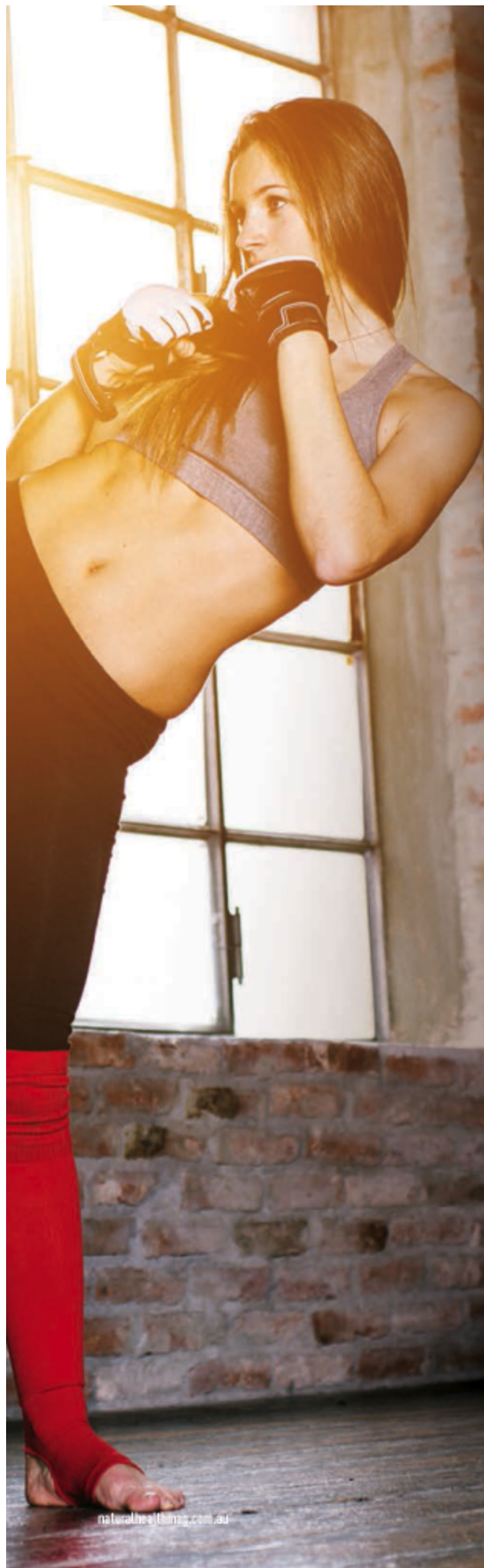
Psoriasis is an autoimmune skin disorder that's characterised by thick, flaky red scales. These scales are formed by an overproduction of skin cells. The cause of psoriasis is not well understood but a genetic marker has been found in 36 per cent of people with the condition. It's also known to be part of an 'autoimmune spectrum' of common diseases that share similar characteristics and treatments.

Psoriasis is sometimes thought to be associated with a deficiency of essential fatty acids (EFAs) and flare-ups seem to be triggered by such things as incomplete protein digestion, dysbiosis (an imbalance of good and bad bacteria in the gut), poor liver function, alcohol, overconsumption of saturated fats, and stress.

A study published in the *Journal of the American Academy of Dermatology* in 2012 suggested that those with psoriasis are almost twice as likely as those without to develop additional autoimmune diseases such as rheumatoid arthritis, coeliac disease and Crohn's disease, so treatment before it gets worse is imperative.

PREVENTION & TREATMENT: Psoriasis often clears up when sufferers travel to destinations closer to the equator, so increasing safe sun exposure can be effective. Diet-wise it's important for sufferers to limit their intake of animal protein because arachidonic acid formed during the breakdown of animal protein is highly inflammatory and can exacerbate the condition. Increasing consumption of fresh garlic and onions, pure water, fibre, raw fruits and vegetables as well as whole grains and cold-water fish can be beneficial.

A good-quality, distilled fish oil supplement should be taken, as this is an effective way to increase EFAs and reduce inflammation in the body. Additionally, a digestive enzyme and good-quality probiotic will help. Shark cartilage has been shown to inhibit the spread of lesions and other supplements that can be effective include a vitamin B complex, vitamins D, E and A, quercetin, pycnogenol and glutathione. A clinical trial published in 2009 in the *Journal of Integrated Traditional Chinese and Western Medicine* involving peony glucosides also showed very promising results in the remission of psoriasis as well as reducing flare-ups and lowering the severity of symptoms.



MULTIPLE SCLEROSIS

Multiple sclerosis (MS) is an inflammatory autoimmune disease of the central nervous system in which the myelin sheath (the coating that protects nerve fibres) becomes inflamed and destroyed. The cause of MS is unknown but both environmental and genetic factors are thought to play a role. Some theories include trauma or injury to the myelin sheath, toxic metals that damage the nervous system (in particular aspartame), dysbiosis, dairy and gluten allergies, a deficiency in EFAs particularly omega-3s, abnormal vitamin B12 metabolism, a deficiency in glutathione peroxidase activity (an enzyme that protects cells from free radical damage), and recently more and more research is pointing toward vitamin D deficiency as a significant risk in the development of MS.

PREVENTION & TREATMENT: By far the vitamin that might be most important in the prevention and treatment of MS is vitamin D. Vitamin D is often depleted in MS sufferers and studies have shown that a high dose of D3 can slow the progression of MS.

Reducing saturated fat consumption is important for those who have MS. No more than 10 grams of saturated fat per day should be consumed. Avoidance of animal protein may also help sufferers and increasing EFAs from sources such as chia, flax, walnuts and pumpkin seeds is vital in order to reduce inflammation.

Supplements to consider if you have MS include a good-quality probiotic, a digestive enzyme, a distilled fish oil with high levels of DHA, vitamin B12, vitamins A, C and E and glutathione. Lecithin – or phosphatidylcholine – is another supplement that may benefit those suffering from MS as it's necessary for the integrity of all cell membranes and nerve transmission.

INFLAMMATORY BOWEL DISEASE

including Crohn's disease and ulcerative colitis

Inflammatory bowel disease (IBD) is a disease in which the gastrointestinal tract becomes inflamed. Crohn's disease and ulcerative colitis fall under this umbrella name. The cause of IBD is not totally understood but it's thought that genetics, food sensitivities and other dietary factors as well as infections and environmental toxicity could be at play. Often severe dysbiosis is present in the gut of those with IBD. Dysbiosis creates dangerous pathogens that inflame the gut and stress the immune system to such a point that it begins to attack the gut tissue. Symptoms of IBD include abdominal pain, weight loss, diarrhoea that's often bloody, rectal bleeding and reduced appetite.

PREVENTION & TREATMENT: In order to help prevent IBD it's imperative to address any food sensitivities or allergies you might have. It's a good idea to keep a food diary and monitor symptoms such as gas, bloating or diarrhoea and get tested for food sensitivities by your nutritionist or naturopath. Avoiding common allergens can also go a long way these include dairy, wheat, corn, gluten, soy, oranges, nightshades and food additives.

If you do have IBD it's a good idea to avoid pro-inflammatory foods such as animal products, especially dairy, and be sure to consume plenty of omega-3s from sources such as flax, chia, walnuts and pumpkin seeds.

Natural anti-inflammatories such as curcumin, bromelain and ginger should be taken regularly, and during acute flare-ups it's important to avoid raw foods and too much fibre. Consuming an alkalising broth or soup can be beneficial during this time.

Essential supplements to consider include probiotics, glutamine, fish oil and a multivitamin, which should be taken with a digestive enzyme at meal times to increase nutrient absorption, which is low in sufferers of IBD. Antioxidants are also important, such as vitamins A, C, E and D, and other supplements that have shown promising results include butyrate, aloe gel, Boswellia and DHEA. Taking supplements in powdered or liquid form can help improve absorbability and reduce strain on the damaged gut.

COELIAC DISEASE

Celiac disease is an autoimmune disease that's thought to be brought about by an intolerance to the protein gliadin, which is found in gluten. The inability to digest this protein is often believed to be the culprit in this disorder; however, there's some debate as to whether it's gluten alone that's responsible or an overall inability to digest disaccharides. Genetic susceptibility is thought to play a role too.

Celiac disease occurs when the immune system incorrectly mounts an attack against what it believes to be a foreign invader (gluten), thus producing an inflamed, swollen and damaged gut, which ultimately compromises all digestion. Symptoms can be painful and embarrassing, including frequent diarrhoea, constipation, bloating, gas, abdominal pain, headaches and weight loss. Malabsorption of vitamins and minerals can be a real problem for those suffering from celiac disease due to the digestive nature of the condition and psychological conditions have also been seen in some sufferers.

PREVENTION & TREATMENT: If you have celiac disease, adhering to a strict gluten-free diet is a must. Absolute compliance to this diet is imperative as even small amounts of gluten can cause intestinal damage. All foods that contain wheat, including spelt, triticale, kamut, rye and barley, must be avoided.

Taking a fish oil, probiotic and multivitamin is important along with a digestive enzyme, which can help ease digestive symptoms and increase nutrient absorbability.

Strengthening the gut lining and reducing inflammation is imperative, so taking curcumin, *Boswellia serrata*, whey protein and glutamine can be beneficial. It's also advisable to get your iron, vitamins A and D, B vitamins, magnesium and zinc levels checked and supplement if required.

ADDISON'S DISEASE

Addison's disease is a hormonal disorder that results in adrenals that do not produce enough of the hormones cortisol and/or aldosterone. About 70 per cent of reported cases of Addison's disease in Australia are due to an autoimmune disorder in which the immune system mistakenly attacks the adrenal glands. Other causes include infections such as tuberculosis, HIV, or fungal infections, haemorrhage or tumours. Symptoms include chronic diarrhoea, nausea and vomiting, patchy darkening of the skin, dehydration, dizziness when standing up (low blood pressure), paleness, weakness, sluggish movement, mouth lesions on

the inside of the cheek, cravings for salt, weight loss and a reduced appetite.

PREVENTION & TREATMENT: If you have Addison's disease, it's imperative to manage your stress levels. Exercise, meditation, yoga or tai chi are excellent ways to keep stress in check. Getting good quality sleep is vitally important too as is eliminating caffeine and other stimulants that can exacerbate the stress response and increase cortisol production, further taxing the adrenals.

Proper blood-sugar control is paramount for those suffering from Addison's disease, so sugar should be avoided as well as simple carbohydrates. These can cause significant dips in blood glucose levels, which in turn stimulates the adrenals to produce more cortisol to raise levels of glucose in the blood. Instead, eat meals at regular intervals and consume fibre at every meal to slow the release of glucose into the bloodstream, which may prevent the release of more cortisol.

An important supplement to take that's imperative for adrenal health is vitamin C. Licorice and Siberian ginseng can help to rebuild the adrenal glands and an adrenal glandular, royal jelly, vitamin B5 and coenzyme Q10 in ubiquinol form can also help.

GRAVE'S DISEASE

Grave's disease is a disease in which the body's immune system attacks thyroid cells, resulting in an overproduction of thyroid hormone. Most common in females, Grave's disease is a form of hyperthyroidism. Symptoms can include bulging of the eyes as well as a fast metabolism, which can lead to weight loss, tremors, tiredness, sweating, diarrhoea, anxiety, a rapid pulse and emotional instability. A goitre might also be symptomatic of this disease.

PREVENTION & TREATMENT: If you have Grave's disease, avoiding all stimulating beverages such as coffee and tea is important as well as avoiding sugar, alcohol, MSG and artificial sweeteners.

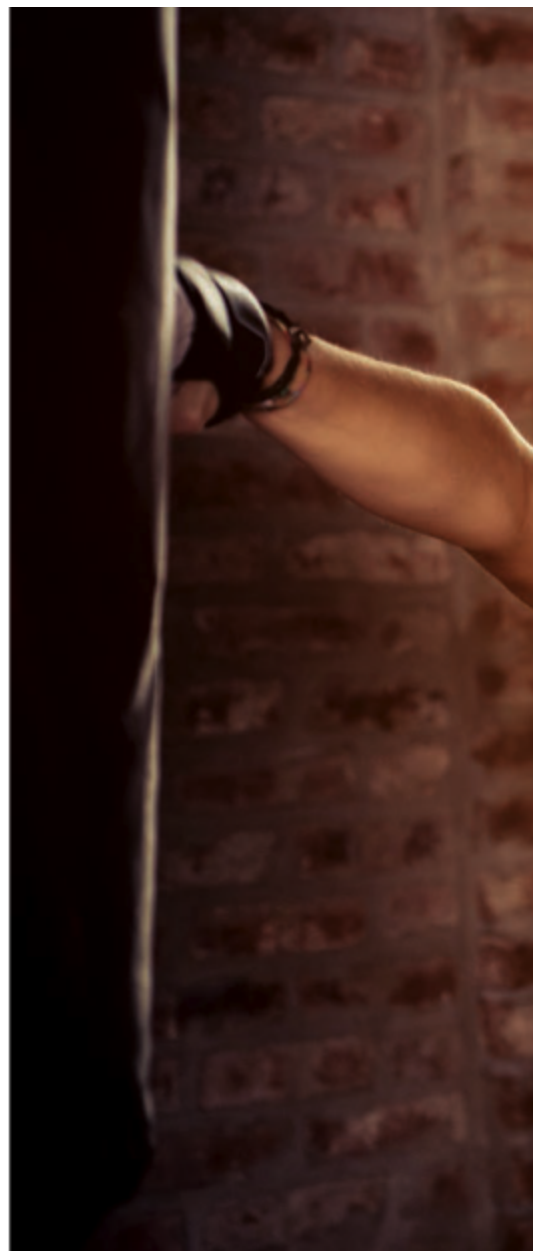
Overconsumption of iodine can worsen hyperthyroidism, so consuming substances called goitrogens can be helpful. Goitrogens are naturally occurring substances found in foods that block the utilisation of iodine. Some common goitrogens include vegetables from the Brassica or mustard family, such as broccoli, Brussels sprouts, cabbage and cauliflower. However, their goitrogenic action is only present in their raw form, so adding them to your smoothies or eating them as a snack or salad is the best

way to reap their benefits. Conversely, be sure to avoid any high-iodine foods such as sea vegetables, scallops, cod, yoghurt, shrimp, sardines, salmon, cow's milk, eggs and tuna.

Be sure to take a good-quality probiotic, fish oil and multivitamin if you have Grave's disease and L-carnitine could be beneficial in alleviating symptoms. Magnesium is a calming mineral that can reduce jitteriness and other calming herbs that can be tried include chamomile, passionflower, skullcap and valerian.

RHEUMATOID ARTHRITIS

Rheumatoid arthritis (RA), sometimes referred to as autoimmune arthritis, is a systemic inflammatory disease that occurs when the immune system attacks the lining of the joints, affecting connective tissue and eroding cartilage. Joint inflammation is the most prominent feature of this condition with symptoms being swollen, warm, painful and stiff





joints that are typically worse in the morning. Dysbiosis and leaky gut are often culprits in the formation of RA. A leaky gut occurs when undigested food and other toxins pass through the intestines into the bloodstream, prompting an immune response that eventually creates inflammation throughout the body. Genetic predisposition can also play a role as can previous infection by the Epstein-Barr virus or rubella.

PREVENTION & TREATMENT: Food allergies and sensitivities are often seen in those suffering from RA, so in order to prevent or treat this disease it's imperative to take good care of your digestive tract. Following habits of good digestion will help, including chewing your food properly, limiting drinking with meals, not eating when stressed and practising food-combining. Avoiding trigger foods that can exacerbate allergies

is also crucial in the prevention and treatment of RA. An elimination diet where foods you are sensitive to are eliminated and slowly re-introduced can be an effective way to prevent leaky gut from developing. Vegetarian, vegan and gluten-free diets can also offer symptomatic relief for RA sufferers.

It's important to obtain a wide variety of fresh vegetables and fruits to enhance antioxidant levels so that the free radicals produced by the inflammation process are combated as best as possible. Drinking two to three cups of freshly squeezed vegetable juice is a great way to flood your body with antioxidants. One of the best juices for someone with RA is a pineapple-ginger juice, which is powerfully anti-inflammatory.

Taking vitamin C with bioflavonoids will help to protect collagen and supplementing with natural anti-inflammatories such as curcumin, bromelain, andrographolides, quercetin,

Boswellia serrata extract and ginger can all be beneficial. Other supplements that should be considered for anyone with RA include a probiotic, digestive enzyme, fish oil, multivitamin, vitamin D, glucosamine and peony glucosides.

Exercise is also a critical component for anyone suffering from RA. Aerobic exercise, strength training and meditative forms such as yoga, tai chi or qi gong are all good options.

HASHIMOTO'S DISEASE

Hashimoto's disease occurs when the immune system attacks the thyroid gland, causing inflammation, which then interferes with its ability to produce thyroid hormones. In contrast to Grave's disease, Hashimoto's is usually characterised by a lack of thyroid hormone secretion, which leads to hypothyroidism. This causes a slowing down of body functions. However, in recent years some clinicians consider Grave's disease and Hashimoto's as different presentations of the same disease.

Typical symptoms of Hashimoto's disease include a sluggish metabolism, slowed heart rate, memory problems, depression, constipation, dry and thinning hair, cold intolerance, fatigue and weight gain.

PREVENTION & TREATMENT: The body requires iodine to produce thyroid hormones; however, too much iodine in the diet can lead to Hashimoto's. Avoiding goitrogenic food is a good idea for anyone suffering from Hashimoto's and supplementing with selenium could be beneficial as this is an important nutrient that affects thyroid function.

Getting significant healthy fats is important and good sources include avocados, nuts and seeds, especially pumpkin, chia and flax seeds for omega 3s. Additionally, coconut oil is very thyroid friendly because of the lauric acid it contains, which soothes the endocrine system. Getting ample antioxidants is also vitally important and these can be obtained from fresh fruits and vegetables, focusing on foods rich in vitamins A, C and E as well as zinc and selenium.

Getting your B12, vitamin D, zinc and copper levels checked and supplementing where needed is also a good idea in order to prevent and treat Hashimoto's.

Be sure to check your levels before dosing fat-soluble vitamins to make sure you're dosing correctly. Working with a naturopath can be helpful in this instance. It's important to test iodine levels before supplementing because both low and high iodine intake can lead to thyroid malfunction. NH