26 AUTOIMMUNE HEALTH TIPS

by HEALTHMEANS

Autoimmune diseases are chronic conditions that involve the destruction of one's own bodily tissues by T helper cells, a part of the immune system [1, 2]. There are currently more than 70 identified autoimmune conditions that affect approximately 5% of the US population [3]. These conditions include rheumatoid arthritis, psoriasis, Grave's disease, type 1 diabetes, multiple sclerosis, lupus and many others [1].

Overall, autoimmune diseases are more common in women than men. Researchers suggest this is because men and women have different immune responses. Females seem to have a stronger immune response to infection—a response that appears to be at least partially driven by differences in hormones like estrogen [3].

Autoimmune diseases are generally thought to arise from inflammation—the inflammation itself can be brought on by infection, toxins, stress, food allergens and other causes. However, genes appear to put some people at higher risk while others have relatively low risk for autoimmune disease. In people with certain genes, environmental factors like diet, toxins and infections can trigger the autoimmune process. Because of these genes, people who already have one autoimmune disease are at increased risk for getting additional autoimmune diseases [3]. But just because you have these genes doesn't mean that you are destined to get an autoimmune condition. You can stop or reverse this process by changing some key lifestyle habits.

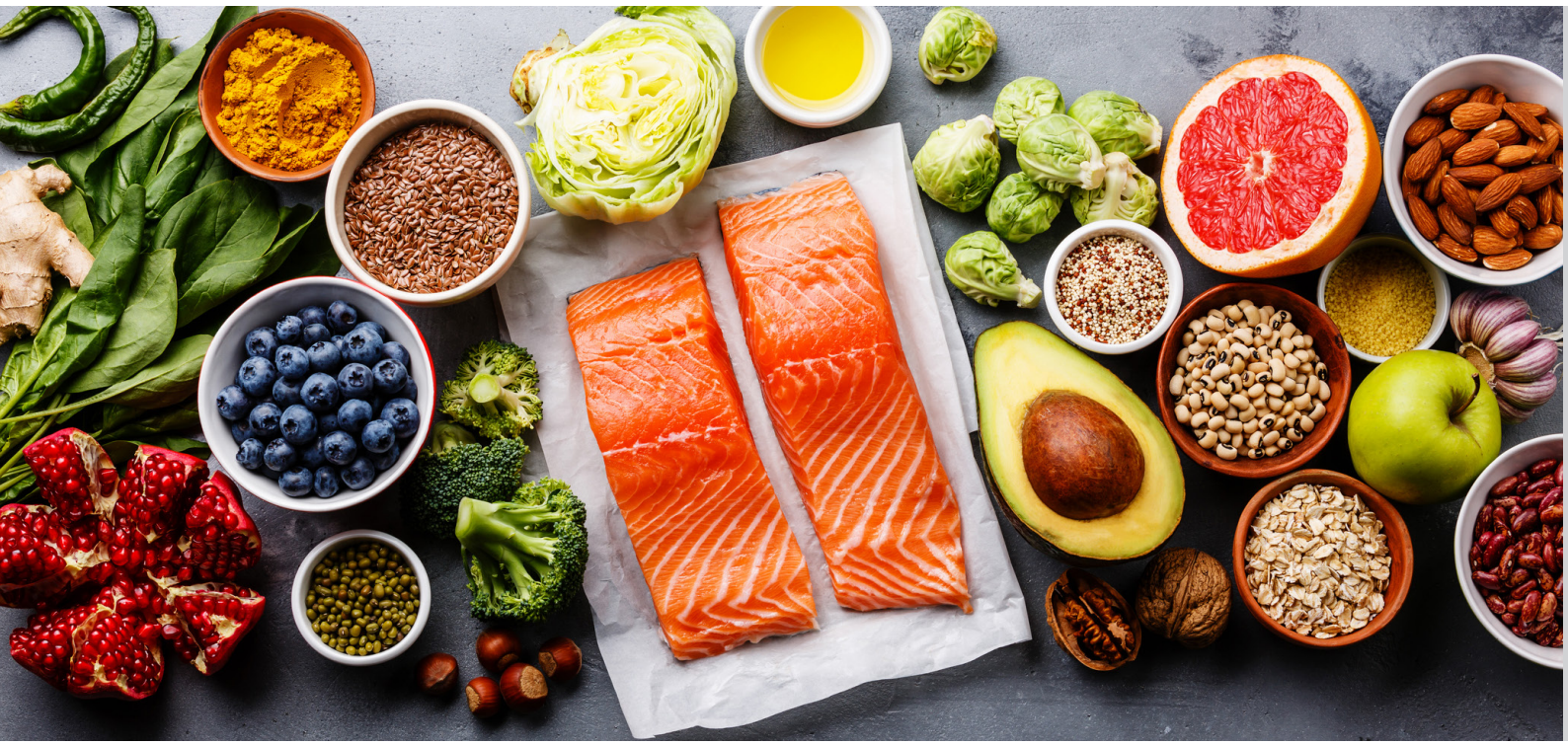
Treatment and management of autoimmune disease focus on regulating the immune response and decreasing inflammation. That means there are lots of simple steps you can take at home to decrease the risk for, or severity of, autoimmune conditions.

CONTENTS

EVIDENCE-BASED STRATEGIES YOU CAN START USING TODAY.

1. EAT AN ANTI-INFLAMMATORY DIET

Inflammation is widely thought to cause and contribute to the development of autoimmune conditions, and increase the severity of illness. Inflammation can be caused by toxins, stress, food allergens, and infection to name a few. That's why reducing inflammation in the body is the primary way to prevent and manage autoimmune conditions. One of the easiest ways to do this is by eating an anti-inflammatory diet.
The Mediterranean diet—a diet consisting of lots of veggies, fish and nuts—is such a diet. This diet is generally recommended to those with arthritis, and it has been shown to decrease inflammation, increase physical function and increase vitality [4]. The Wahls protocol, which is a modified paleo diet, has also shown some success with multiple sclerosis [5]. Switching to one of these diets can be extremely beneficial for autoimmunity.



2. IDENTIFY FOOD SENSITIVITIES

Food sensitivities appear to be one of the most obvious causes of autoimmune diseases, perhaps by causing inflammation. Celiac disease is perhaps the best understood of these food-driven autoimmune conditions and arises from the consumption of gluten. It is suspected that many other autoimmune diseases are also at least partially caused by food sensitivities. For example, in some people, type 1 diabetes may arise from consumption of gluten, soy, or milk.

Any common food allergen could be a trigger for autoimmunity, but overall, wheat, milk and soy appear to be the biggest offenders [6]. That's why doing an elimination diet—or a diet that eliminates all common food allergens for a period of time and then reintroduces them back into the diet slowly—can help you determine if you have food sensitivities that worse your risk for, or experience of, autoimmunity.

3. ADDRESS LEAKY GUT

We now know how important inflammation is to autoimmunity. But how might inflammation contribute to autoimmunity? Some suggest that an infection only becomes an autoimmune condition when the protective barrier in the gut becomes permeable, a condition otherwise known as "leaky gut". When you have leaky gut, substances leak into the body causing an immune response that can lead to new food allergies and become an autoimmune condition.

Inflammation may also cause leaky gut [7]. So again it's key to decrease inflammation to reduce risk for autoimmunity. In addition to removing foods from your diet that you're sensitive to, consuming less alcohol and eliminating parasite infections may help prevent and resolve leaky gut [7-9].

4. AVOID FOOD ADDITIVES

Research shows that many food additives can increase leaky gut. For example, emulsifiers, which are used widely in baked goods, gums and convenience foods, have been linked to increased leaky gut [10]. That's why when managing an autoimmune condition, it can be helpful to avoid processed foods and stay away from ingredients you don't recognize.

5. GET MORE BUTYRATE

Butyrate is a fatty acid that is produced by the bacteria in our gut when they ferment dietary fiber. Higher levels of butyrate can help resolve leaky gut [11]. That means that eating more high fibrous veggies, other high-fiber foods and supplementing with butyrate may be helpful for preventing autoimmunity.

6. GET MORE GLUTAMINE

Glutamine is thought to be important fuel for intestinal tissue and immune cells, and it is key in preventing and resolving leaky gut. During times of stress or infection, glutamine may become even more important [12]. That's why eating foods high in glutamine (i.e., high protein foods) and supplementing with glutamine is thought to be a potential tool in fighting autoimmunity.

7. GET MORE ARGININE

Arginine is another key amino acid that helps a stressed gut and other types of inflammation. It has been shown to help preserve the gut barrier and manage pro-inflammatory cytokines [12]. Similar to glutamine, arginine can be increase by eating more protein foods or by consuming amino acids, collagen or other arginine-containing supplements.

8. GET MORE VITAMIN D

Several studies have linked vitamin D to autoimmunity. Because vitamin D comes primarily from sunlight, countries with less sunlight tend to have higher rates of autoimmune diseases, and months of the year with less sunlight tend to exacerbate autoimmune symptoms. Luckily, vitamin D supplements are widely available when sunlight is not available.

STUDIES HAVE SHOWN THAT VITAMIN D SUPPLEMENTS REDUCED THE LIKELIHOOD OF DEVELOPING AUTOIMMUNE CONDITIONS SUCH AS RHEUMATOID ARTHRITIS, MULTIPLE SCLEROSIS AND TYPE 1 DIABETES.

However, more than the minimum requirements of vitamin D may be needed among those with autoimmune conditions or high autoimmune risk [2]. For these reasons, taking vitamin D supplements may be useful tool for preventing and managing autoimmunity.

Because vitamin D is a fat soluble vitamin, it is absorbed better when we take it with a fatty or large meal. In fact, one study showed that taking vitamin D with the largest meal of the day resulted in greater absorption and about a 50% increase in serum vitamin D levels [13]. So be sure to take vitamin D with a big meal.

9. CONSUME MORE FISH OIL

Dietary fish oil has been shown to have anti-inflammatory effects in the body. It appears that both DHA and EPA, two fatty acids in fish oil, can alleviate the severity of autoimmune inflammation. Combining both DHA and EPA appears to be the most effective for inflammation [14]. DHA and EPA are found almost exclusively in fatty fish and fish oil, so be sure to consume these if you're dealing with an autoimmune condition. Aim to get these oils by eating more fatty fish (remember the fatty fish with the acronym SMASH, which stands for salmon, mackerel, anchovies, sardines, herring) and take supplements as needed.

10. TAKE ZINC

If you have inflammation, zinc stores can get depleted. This can be problematic because zinc is involved in cell turnover and repair. Taking zinc can also help restore the gut lining. This makes it important for both the immune system and the gut [11]. So be sure to take the daily-recommended amount of zinc to protect yourself.

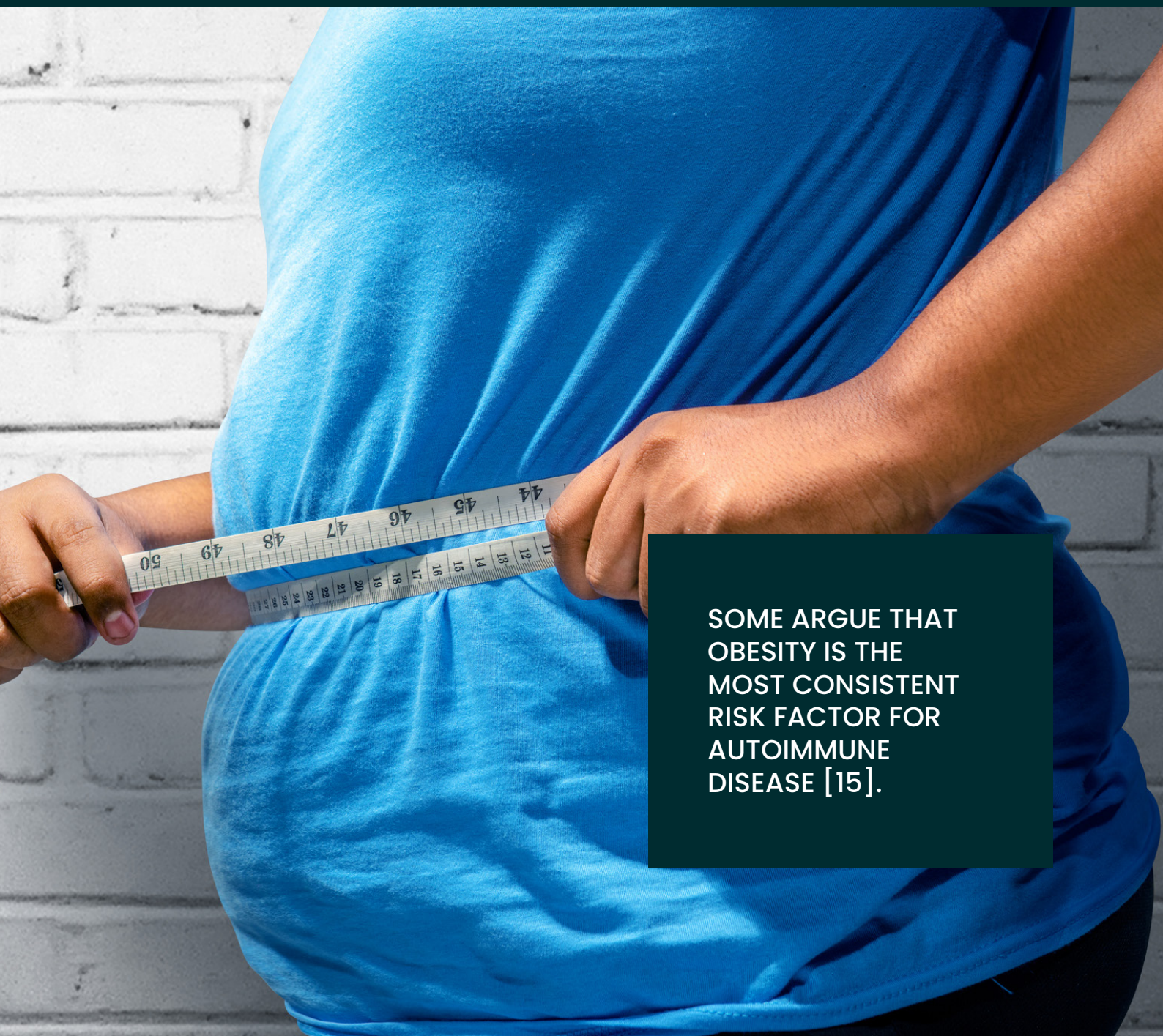
11. CONSIDER EATING LESS MEAT

Autoimmune diseases are more common in "Western" societies than developing countries. Some have suggested this is because of the Western diet, a diet which consists of more meat, junk food and fast food. Indeed, initial research suggests diets high in animal protein can be a risk factor for inflammatory bowel diseases such as Crohn's disease and ulcerative colitis, as well as multiple sclerosis [15]. In contrast, a vegan diet appears to be protective against autoimmunity [16].

Given both low-meat diets and higher-meat diets like the Wahls protocol have shown success with autoimmunity, it's important to pay attention to how you feel when making diet changes. It may be beneficial for some people to eat less meat and animal products to protect against autoimmune diseases while others may benefit more from eating high quality (grass fed, antibiotic-free) meat. Trust your body and re-evaluate as you go.

12. LOSE WEIGHT

Obesity, or high body mass index (BMI), has been shown to put people at risk for autoimmune conditions including psoriasis and rheumatoid arthritis. More specifically, white adipose tissue causes chronic, low-grade inflammation. Perhaps this is why some argue that obesity is the most consistent risk factor for autoimmune disease [15]. That also means that losing fat can be protective against autoimmune conditions.



SOME ARGUE THAT OBESITY IS THE MOST CONSISTENT RISK FACTOR FOR AUTOIMMUNE DISEASE [15].

13. TRY PERIODIC CALORIE RESTRICTION

Although chronic calorie restriction doesn't appear to be good for health, restricting calories with periodic fasting, intermittent fasting or carb-restricted (ketogenic) diets have been shown to increase lifespan across a series of studies. Plus, both intermittent fasting and ketogenic diets have been shown to reduce the severity of autoimmune disease in rodents. The mechanisms are not entirely clear, but these diets may work at least in part by killing autoimmune cells and reversing immune dysfunction [17].

14. TAKE PROBIOTICS

Given the importance of the gut in autoimmunity, it's important to consider the role of gut bacteria. **THE BACTERIA IN OUR GUT—OR MICROBIOME—ARE THOUGHT TO BE INVOLVED IN THE DEVELOPMENT OF AUTOIMMUNE CONDITIONS.** Luckily, supporting the growth of good gut bacteria with probiotics has been shown to improve autoimmune conditions [15]. Bifidobacterium, lactobacillus and saccharomyces probiotic strains, in particular, have been shown to be beneficial [12].

15. AVOID TRANS FATS

Trans fats have been shown to contribute to a variety of negative health conditions, likely because of the role trans fats have in increasing inflammation. Given inflammation is a key feature of autoimmune disease, research started exploring the role of trans fats in autoimmunity. This research showed that trans fats exacerbate inflammation in the colon [18]. That's why avoiding trans fats can be helpful for autoimmune conditions.

16. AVOID HEAVILY PROCESSED OILS

Solvents are dangerous substances, many of which have labels as poisons. Yet, solvents are widely used in the extraction of oils. An estimated 60 million tons of edible oils are made with extraction using the solvent Hexane. These oils, which include soybean, canola, palm, and safflower [10, 19], are then sold as food and used in many processed and pre-packaged foods [10]. Exposure to solvents has been associated with multiple sclerosis and all other autoimmune diseases evaluated in one study [20]. So to prevent autoimmunity and reduce severity, stay away from any oils that require solvents for extraction.

17. CONSUME HEALTHY OILS

As you are now learning, some fats have been shown to be bad for inflammation and autoimmunity. While heavily processed vegetable oils can be inflammatory and bad for autoimmunity [21], one study found that olive oil reduced inflammatory cascades in mice with ulcerative colitis [22]. So consider swapping out trans fats (like margarine) and heavily processed oils (like soybean oil) with olive oil to protect against autoimmunity. Other healthy oils include coconut oil, avocado oil, macadamia nut oil—these are especially beneficial for cooking because of their higher smoke point.

18. CONSUME GREEN TEA AND OTHER FOODS WITH EGCG

Consuming green tea, and one of its key components EGCG, has been associated with many health benefits. One study conducted in rats even found that EGCG suppressed inflammation and prevented relapsing autoimmune disease. The amount used in the study equates to 3 liters of brewed green tea (or 12.6 cups) [23]. It may be tough to drink that much green tea, so drink green tea when you can and consider taking EGCG supplements.

19. ENGAGE IN STRESS REDUCTION

We now know that stress—especially chronic stress—can hurt the immune system and be generally bad for health. That's why practicing stress-reduction techniques can be helpful for all sorts of conditions, including autoimmunity. In fact, one study assessed the impact of stress reduction therapy among people with multiple sclerosis. They found that fewer people in the stress reduction group developed new multiple sclerosis lesions than those not in a stress-reduction group [24]. This suggests that engaging in stress reduction—for example mindfulness, deep breathing and other relaxing activities—may lessen the severity of autoimmune conditions.

20. QUIT SMOKING

Smoking has been linked to several autoimmune diseases such as lupus, rheumatoid arthritis, Graves' disease and others. Because cigarettes include many potentially toxic substances, they produce more free radicals in the body. These toxins and free radicals can activate genes, turning on autoimmune conditions [25]. That's why quitting smoking and limiting exposure to cigarette smoke can protect you against autoimmune conditions.

21. CONSUME FLAVONOIDS

Flavonoids are a type of polyphenol present in some plant foods. Given the anti-inflammatory effects of flavonoids, they are thought to be beneficial for at least some types of autoimmune conditions. Flavonoids that have been linked to positive autoimmune outcomes include citrus fruit, cherries, cocoa, cinnamon and red grapes [26]. Consume these foods to gain their benefits.

22. CONSUME OTHER POLYPHENOLS

Although we know more about the impact of flavonoids on autoimmune conditions, initial evidence also suggests that other polyphenols are beneficial. For example, turmeric, curcumin and ginger appear beneficial, perhaps in part due to their anti-inflammatory effects [26]. Including these foods with meals may help with autoimmune conditions.

23. AIM TO EAT EXTRA VEGGIES

The minimum recommendation is to eat 3 servings of vegetables per day, but when it comes to autoimmunity, it seems that the more vegetables you eat the better. The Wahls protocol suggests 9 cups of veggies and fruits per day [5]. One study even found that the children of pregnant women who ate more vegetables had lower risk of developing autoimmune antibodies [27]. So aim to eat lots of plant foods to make sure you get a broad range of nutrients.

24. SUPPLEMENT WITH BERBERINE

Berberine has been used in traditional Chinese medicine for a variety of health issues. It is anti-inflammatory and neuroprotective. Given these benefits studies have explored the impact of berberine on autoimmunity and found it is beneficial for rheumatoid arthritis, type 1 diabetes, colitis and other autoimmune conditions. So supplementing with berberine may be useful in the management of a variety of autoimmune conditions.

25. SUPPLEMENT WITH SELENIUM

Selenium has many important impacts on health and affects human tissues, muscles and organs. In particular selenium seems to be key in functioning of the thyroid. Several studies have shown that supplemental selenium can reduce severity of autoimmune thyroiditis. So if your autoimmune challenges involve the thyroid, make sure you get the recommended intake of 55 mg/day of selenium [28].

26. CONSIDER TRYING AN ELEMENTAL DIET

The elemental diet is a diet where one consumes only liquid nutrients in an easily digestible form. This diet is generally only used in people with autoimmune conditions like inflammatory bowel disease, but its potential to resolve leaky gut makes it an option to consider for other autoimmune conditions as well. For example, one study showed that 80% of people with Crohn's disease went into remission after 1 week on the diet. And after 4 weeks, there was evidence of significant improvement in leaky gut [29]. If you're struggling with an autoimmune condition, this may be one additional option to consider with the support of your doctor.

SUMMARY

Autoimmunity is a complicated condition that can manifest in many different diseases. But given the underlying influences of inflammation and leaky gut, similar solutions may be beneficial for many autoimmune conditions. We hope that the research-supported solutions presented in this eBook give you what you need to reduce risk of developing an autoimmune condition or reduce the severity of an existing autoimmune condition.

HERE'S TO HEALTH.

REFERENCES

1. Vyse, T.J. and J.A. Todd, *Genetic analysis of autoimmune disease.* Cell, 1996. 85(3): p. 311-318.
2. Cantorna, M.T. and B.D. Mahon, *Mounting evidence for vitamin D as an environmental factor affecting autoimmune disease prevalence*. Experimental biology and medicine, 2004. 229(11): p. 1136-1142.
3. Whitacre, C.C., *Sex differences in autoimmune disease.* Nature immunology, 2001. 2(9): p. 777-780.
4. Sköldstam, L., L. Hagfors, and G. Johansson, *An experimental study of a Mediterranean diet intervention for patients with rheumatoid arthritis*. Annals of the rheumatic diseases, 2003. 62(3): p. 208-214.
5. Wahls, T.L. and E. Adamson, T*he Wahls protocol: a radical new way to treat all chronic autoimmune conditions using paleo principles.* 2014: Penguin.
6. Kitts, D., et al., *Adverse reactions to food constituents: allergy, intolerance, and autoimmunity.* Canadian journal of physiology and pharmacology, 1997. 75(4): p. 241-254.
7. Fasano, A., *Leaky gut and autoimmune diseases.* Clinical reviews in allergy & immunology, 2012. 42(1): p. 71-78.
8. Mu, Q., et al., *Leaky gut as a danger signal for autoimmune diseases.* Frontiers in immunology, 2017. 8: p. 598.
9. Terry, T.L., T.S. Watson, and B.F. Watson, *Herbal formulation for rebuilding intestinal bacteria.* 2002, Google Patents.
10. Lerner, A. and T. Matthias, *Changes in intestinal tight junction permeability associated with industrial food additives explain the rising incidence of autoimmune disease.* Autoimmunity reviews, 2015. 14(6): p. 479-489.
11. Michielan, A. and R. D'Incà, *Intestinal permeability in inflammatory bowel disease: pathogenesis, clinical evaluation, and therapy of leaky gut.* Mediators of inflammation, 2015. 2015.
12. Andrade, M.E.R., et al., *The role of immunomodulators on intestinal barrier homeostasis in experimental models.* Clinical nutrition, 2015. 34(6): p. 1080-1087.
13. Mulligan, G.B. and A. Licata, *Taking vitamin D with the largest meal improves absorption and results in higher serum levels of 25-hydroxyvitamin D*. Journal of Bone and Mineral Research, 2010. 25(4): p. 928-930.
14. Robinson, D.R., et al., *Suppression of autoimmune disease by dietary n-3 fatty acids.* Journal of lipid research, 1993. 34(8): p. 1435-1444.
15. Manzel, A., et al., *Role of "Western diet" in inflammatory autoimmune diseases.* Current allergy and asthma reports, 2014. 14(1): p. 404.
16. Tonstad, S., et al., *Prevalence of hyperthyroidism according to type of vegetarian diet.* Public health nutrition, 2015. 18(8): p. 1482-1487.
17. Choi, I.Y., C. Lee, and V.D. Longo, *Nutrition and fasting mimicking diets in the prevention and treatment of autoimmune diseases and immunosenescence.* Molecular and cellular endocrinology, 2017. 455: p. 4-12.

18. Okada, Y., et al., *Trans fatty acids exacerbate dextran sodium sulphate-induced colitis by promoting the up-regulation of macrophage-derived proinflammatory cytokines involved in T helper 17 cell polarization.* Clinical & Experimental Immunology, 2013. 174(3): p. 459-471.
19. Kumar, S.J., et al., *Green solvents and technologies for oil extraction from oilseeds.* Chemistry Central Journal, 2017. 11(1): p. 9.
20. Barragán-Martínez, C., et al., *Organic solvents as risk factor for autoimmune diseases: a systematic review and meta-analysis.* PloS one, 2012. 7(12): p. e51506.
21. Fernandes, G., *Dietary lipids and risk of autoimmune disease.* Clinical immunology and immunopathology, 1994. 72(2): p. 193-197.
22. Sánchez-Fidalgo, S., et al., *Dietary extra virgin olive oil polyphenols supplementation modulates DSS-induced chronic colitis in mice.* The Journal of nutritional biochemistry, 2013. 24(7): p. 1401-1413.
23. Aktas, O., et al., *Green tea epigallocatechin-3-gallate mediates T cellular NF-κB inhibition and exerts neuroprotection in autoimmune encephalomyelitis.* The Journal of Immunology, 2004. 173(9): p. 5794-5800.
24. Rapaport, B. and S. Karceski, *Multiple sclerosis and stress about multiple sclerosis.* Neurology, 2012. 79(5): p. e47-e49.
25. Costenbader, K. and E. Karlson, *Cigarette smoking and autoimmune disease: what can we learn from epidemiology?* Lupus, 2006. 15(11): p. 737-745.
26. Sung, S., et al., *Could polyphenols help in the control of rheumatoid arthritis?* Molecules, 2019. 24(8): p. 1589.
27. Brekke, H.K. and J. Ludvigsson, *Daily vegetable intake during pregnancy negatively associated to islet autoimmunity in the offspring–the ABIS study.* Pediatric diabetes, 2010. 11(4): p. 244-250.
28. Negro, R., *Selenium and thyroid autoimmunity.* Biologics: targets & therapy, 2008. 2(2): p. 265.
29. Teahon, K., et al., *The effect of elemental diet on intestinal permeability and inflammation in Crohn's disease.* Gastroenterology, 1991. 101(1): p. 84-89.

If you like what you've read here, be sure to explore HealthMeans for 1000s of additional health talks, eBooks and programs!