

#### What is WellTheory?

WellTheory combines community care, dietary and lifestyle changes and personalized insights from your health data to support you no matter where you are in your autoimmune journey.

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In the last decade, the autoimmune protocol (AIP) diet has gained significant popularity, with more and more people adopting it to help treat their autoimmune conditions. Proponents of the diet claim it also helps them improve their energy levels.

But are these benefits scientifically proven? And is the protocol safe?

In this Guide, we'll dive into the basics of the autoimmune protocol diet, including what it is, what foods are included in the diet, and what to expect when you go on the protocol.



## Where did the **AIP diet** come from?

The AIP diet is the natural outgrowth of decades of thought about how our modern diet impacts our health.

In 1975, gastroenterologist Walter L. Voegtlin published a book called The Stone Age Diet. Dr. Voegtlin believed that humans evolve too slowly to keep up with rapid changes in our environment. This idea, known as the evolutionary discordance hypothesis, posits that while the modern diet has changed greatly, genetically our bodies are stuck in the Stone Age, or Paleolithic era. According to this hypothesis, for optimum health we should eat the way our ancient ancestors did.



Later authors built on the evolutionary discordance hypothesis:

- In 2002, exercise physiologist Loren Cordain coined a popular new term when he published his book, The Paleo Diet.
- · In 2010, research biochemist turned personal trainer Robb Wolf came out with his book The Paleo Solution, promoting the idea of preventing and treating disease by following the paleo diet.
- In 2014 Dr. Sarah Ballantyne, a PhD level researcher who has become a well-known proponent of the paleo diet, published her book *The Paleo Approach*. Dr. Ballentyne focuses specifically on using diet to treat autoimmune disorders.

The autoimmune protocol diet is considered an offshoot of the paleo diet. It is designed to remove foods that can trigger an immune system response, possibly leading to inflammation and autoimmune disease.

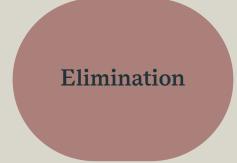


The autoimmune protocol diet is an extension of the paleolithic diet with an autoimmune twist. Similar to the paleo diet, the AIP diet has an initial elimination phase, in which food groups that are considered problematic are removed from the diet.



## The 3 phases of the **AIP diet**

The AIP diet is intended to be broken down into three phases:



#### Reintroduction



#### THE ELIMINATION PHASE

During the initial phase foods, food additives, and medications that may cause inflammation, allergic reactions, or imbalance in the gut microbiome (dysbiosis) are eliminated from the diet. Many of these foods are implicated in inflammatory bowel disease (IBD). (15)

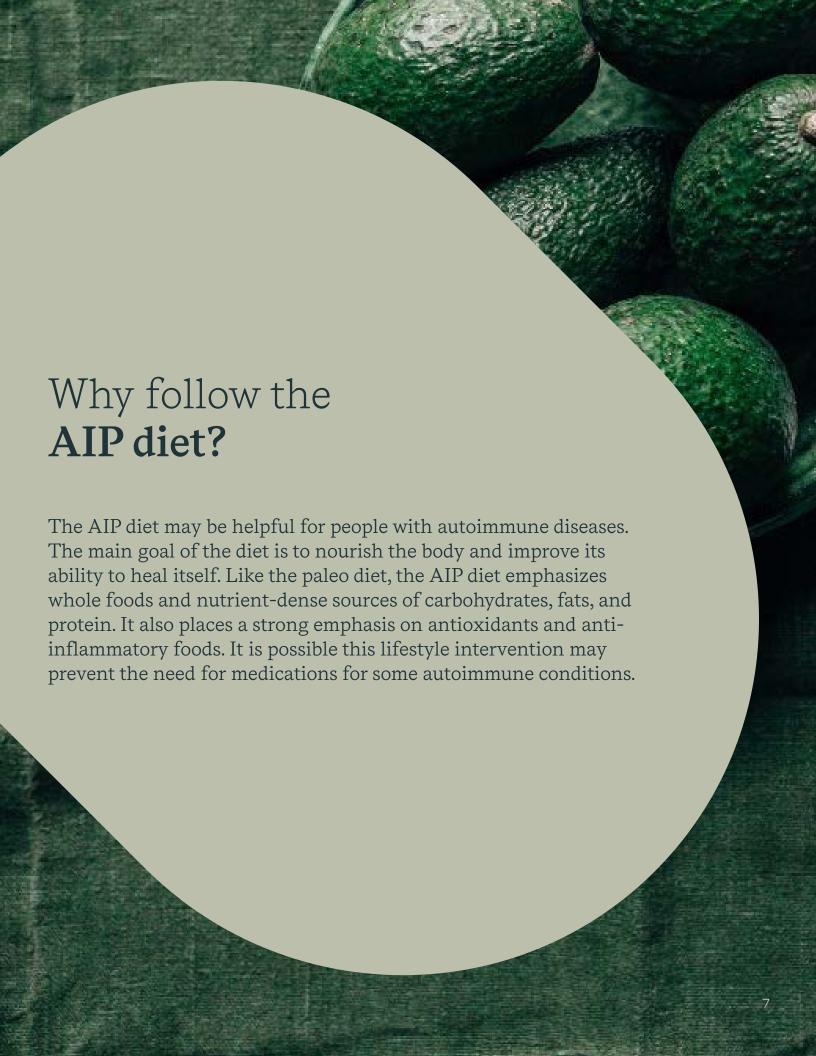
#### THE REINTRODUCTION PHASE

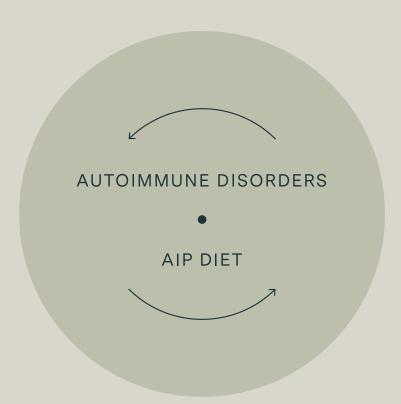
This phase involves systematic reintroduction of eliminated foods to allow the individual to identify unique food groups that cause their symptoms and aggravate diseases, and to see which food groups are problematic for them. (7)

This process is also called an elimination-provocation challenge. After the challenge is completed, the individual will have a list of their most problematic foods, or triggers. Avoiding these triggers may help alleviate disease symptoms.

#### THE PERSONALIZATION PHASE

The personalization phase is designed to be specific to the individual in order to improve their symptoms and well-being. The purpose is to avoid foods that can trigger intestinal inflammation and other symptoms. (15)





# What is the connection between autoimmune disorders and the **AIP diet?**

Autoimmune disorders occur when your immune system mistakenly attacks your own body, causing inflammation that can damage tissues and organs. Autoimmune disorders can occur at any age and affect both males and females, but they are most common in women. Although the exact cause of autoimmune disorders is unknown, it is thought that genetics, environmental factors, and lifestyle choices play roles. (2)

One environmental factor — and lifestyle choice — that is under your control is your diet. Following the AIP diet may help you manage your autoimmune disease symptoms. (32)

# How does AIP affect autoimmune diseases?

There is evidence to suggest the AIP diet may help alleviate symptoms, improve quality of life, and promote healing in people with autoimmune disease. Studies report that some participants notice positive changes within the first four weeks of the elimination diet. (1)

Following the AIP diet may be beneficial for these autoimmune diseases:

### Inflammatory bowel disease (IBD)

These gastrointestinal disorders include Crohn's disease and ulcerative colitis. The use of dietary modification via AIP diet, along with IBD therapy, has been shown to be effective at treating IBD. (15)

#### Hashimoto's thyroiditis

A study published in the journal Cureus found an online, community-based AIP diet and lifestyle program improved quality of life and symptoms for middle-aged women with Hashimoto's thyroiditis. There were no statistically significant changes in thyroid functions or thyroid hormones, but AIP may have decreased systemic inflammation. (1)

#### Multiple sclerosis

Factors such as diet may impact the development and severity of symptoms of the autoimmune disease multiple sclerosis. (33)

#### **Psoriasis**

Psoriasis is a chronic inflammatory skin disease. Nutrition is suggested as a key factor for development of psoriasis, and patients are advised to follow a balanced diet with sufficient intake of fish and dietary fiber. Dietary changes for psoriasis should supplement first-line treatments including medications. (14)

#### Lupus

This autoimmune disease and its associated inflammation may be modulated by diet. While more study is needed, evidence suggests lupus symptoms may be reduced by restricting calories while emphasizing intake of polyunsaturated fats, protein, fiber, and vitamins. (8)

## What are foods to avoid during the elimination phase?

The first phase of the AIP diet requires elimination of a large number of foods that are part of a typical Western diet. Included are foods that may be pro-inflammatory, may upset the balance of the gut microbiome, or are common allergens. Many of these foods are also highly nutritious and are recommended in the personalization phase of the AIP diet for those who can tolerate them.

Here are the food groups included in the AIP elimination phase, along with the rationale behind each elimination:



Anti-inflammatory Drugs

Sweeteners

Sugars

10

## What are foods to avoid during the elimination phase?

### Legumes: Lentils, beans, peas, peanuts

Legumes are high in lectins and saponins, substances that are commonly consumed in a wide variety of foods. They are excluded during the AIP elimination phase because research suggests they have the ability to harm cells that line the intestinal tract and upset the balance of the microbiome. (27, 11)

### Highly-processed industrial seed oils

It's well known that omega-3 and omega-6 fatty acids are good for health, but an un-balanced ratio of the two kinds is believed to be pro-inflammatory. Unprocessed oils with a healthier omega-3 to omega-6 ratio can be added back to the diet during the reintroduction phase. (29)

#### Nonsteroidal antiinflammatory drugs (NSAIDs)

Nonsteroidal antiinflammatory drugs do, as the name suggests, reduce inflammation. However, they can also be hard on the gastrointestinal tract and have the potential to disrupt the intestinal barrier. (31)

#### Grains: Rice, wheat, oat

Grains are considered to have the same kind of potentially harmful effects as legumes and are included in the elimination phase for the same reasons.

#### **Nuts and Seeds**

Nuts and seeds have many nutritional benefits, but allergies to them are common enough that they naturally have a place in an elimination diet. Many people are able to successfully reintroduce at least some nuts and seeds to their diet.

#### Refined or processed sugars such as white sugar and brown sugar

Consumption of processed sugars has long been shown to contribute to inflammation and chronic conditions such as heart disease and obesity, but more recently it has been correlated with exacerbation of autoimmune diseases such as lupus. (9)

#### Nightshade vegetables: Eggplants, peppers, potatoes, tomatoes

Citrus and nightshade vegetables are suggested to generate sensitivities in large proportions of the population.
Eggplants, tomatoes, and potatoes may contain solanine, which may increase intestinal permeability and be detrimental to certain diseases. (36, 6)

#### Food additives:

The effects on the intestinal tract of common additives including guar and xanthan gums, carrageenan, and lecithin have been studied for years with few hard conclusions. A new study in the journal Microbiome reports evidence that many emulsifiers have detrimental effects on the gut microbiome and promote intestinal inflammation. (18)

#### Alcohol

Studies have found alcohol may both encourage growth of harmful microbes in the gut and disrupt the intestinal lining. Alcohol intoxication also increases the risk of IBD. (26, 28, 12)

#### **Dairy**

Choline and carnitine, which are present in dairy, are metabolized by the bacterium *Prevotella copri* into pro-inflammatory substances. (6)

#### Non-nutritive sweeteners: Aspartame, stevia, and others

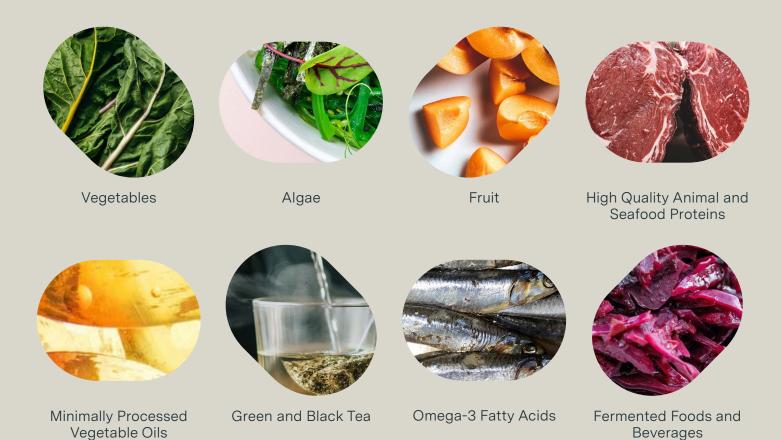
Non-nutritive sweeteners, which have few if any calories, are often promoted as healthier alternatives to calorierich sugars. In vitro lab studies have suggested that these sweeteners, which bind to taste receptors located throughout the body, may affect hormone secretion. In vivo studies, however, have not confirmed this occurs in humans, and more research is needed.

#### **Eggs**

Choline and carnitine are also present in eggs. Eggs are also high in fat. A high-fat diet has been shown to have a detrimental effect on autoimmune diseases. (19)

## What are the best foods for the **AIP diet?**

The foods included in the AIP diet are intended to maximize nutritional value while minimizing autoimmune and inflammation triggers.



## What are the best foods for the **AIP diet?**

## Vegetables (except for nightshades), algae, and fresh fruit

Fruits and vegetables are high in fiber, which helps control blood pressure, blood sugar, and cholesterol. However, too much fiber intake may lead to low absorption of nutrients. Polyphenols, especially flavonoids, are bioactive components found in fruits, vegetables, and tea that have a beneficial impact on gut microbiota.

### High-quality animal and seafood proteins

In the context of the AIP diet, meat is considered nutritionally dense with a healthy ratio of omega-3 and omega-6 fatty acids. It is recommended to choose grass-fed beef, bone broth, and organ meats, and to avoid processed meats, which may contain additives.

### Fermented foods and beverages

Microbial activity helps increase the bioavailability of nutrients in fermented foods. They are especially rich in probiotics, which help keep the gut microbiome healthy and may help reduce inflammation. (17, 25)

#### **Omega-3 fatty acids**

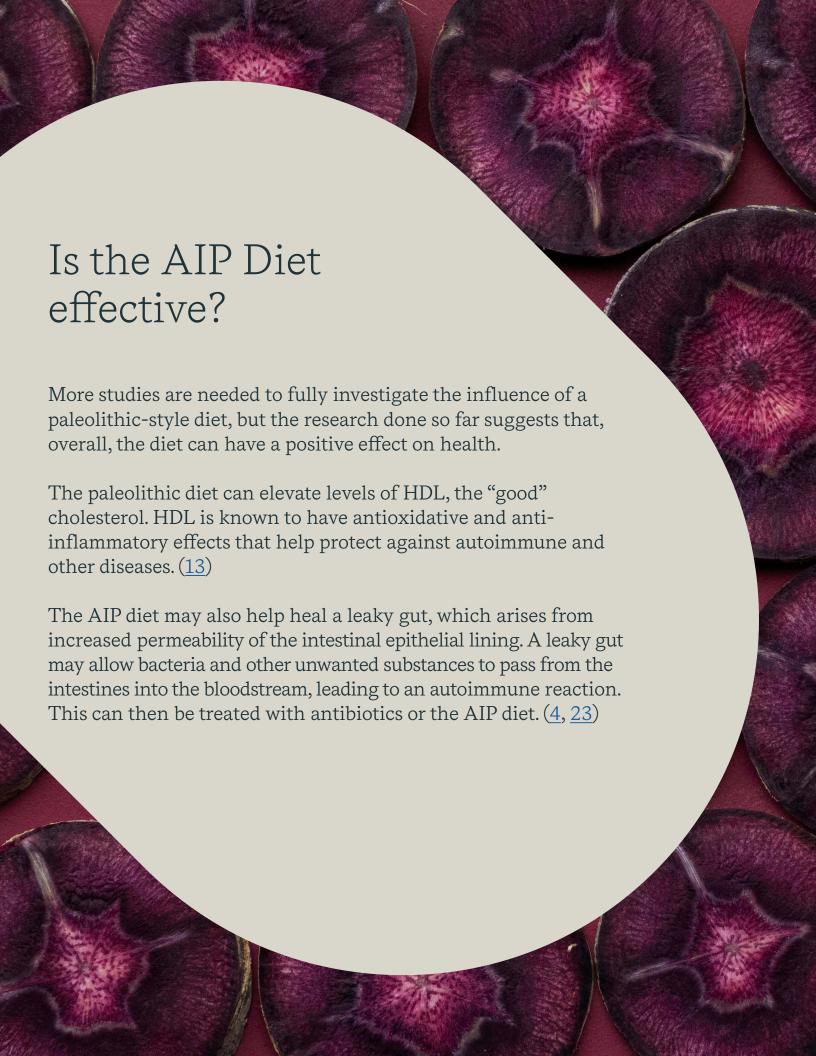
Fatty acids are antimicrobial. antifungal, and antiviral, and medium-chain triglycerides in fatty acids such as coconut oil aid in nutrient absorption. They've also been shown to be particularly beneficial for managing gastrointestinal disorders, which may help reduce inflammation. The main sources of omega-3 fatty acids are cold-water fish such as wild-caught salmon, sardines, and mackerel. A diet rich in omega-3 fatty acids may help reduce inflammation, but further testing must be done to see if there's any benefit for those with autoimmune diseases. (36, 18, 8)

#### Green and black tea

Green tea and its active ingredient, EGCG (epigallocatechin-3-gallate), are anti-inflammatory and have been shown to improve symptoms and decrease the severity in animal models with autoimmune disease. (34)

## Minimally processed vegetable oils: coconut oil, olive oil, and avocado oil

Studies show these oils have an overall beneficial effect on autoimmune diseases. (19)



### Is the AIP diet safe?

The AIP diet is safe overall, given that its aim is to cut out foods that are inflammatory triggers. However, the large numbers of foods that are excluded mean there are some concerns to be aware of.

#### Low carbohydrate intake

The AIP diet is not intended as a low carbohydrate diet. However, the removal of grains without realizing what vegetable intake is necessary to maintain a healthy level of carbohydrates causes low carbohydrate intake. A lack of carbohydrates, especially complex carbohydrates, can deprive you of highly beneficial nutrients and fiber. (3)

#### **Increased saturated fats**

Research has shown that high-saturated intake can be problematic, especially in certain populations. However, moderate total fat intake, as is encouraged with the AIP framework, is beneficial for the absorption of the fat-soluble vitamins A, D, E, and K, as well as helping to prevent a variety of health concerns related to healthy cell membrane formation. (30)

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