

# AS PROMISED HERE'S YOUR SOLUTION.



Name:	Tracy Tester
Order:	0000
OUR TESTS ARE DEFINED AS NON-IGE-MEDIATED. ALSO REFERRED TO FOOD SENSITIVITY, FOOD ALLERGY OR FOOD INTOLERANCE TESTS	

Please find your test results. First we give you this introduction and an explanation on how to read your results. Later you'll see a chart that shows the relation between the items tested.

Next are your personal results listed. After that you'll find some useful resources regarding all items tested.

Items in red you have to avoid, they are all above 50%. **We only report above this threshold, because 50% is the point where one would start to experience symptoms from an intolerance.** Items in orange you can eat in moderation (small portions). Green is safe to average for you.

Safe to Average	Moderation	Priority:Avoid
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Some items such as Additives, Preservatives, etc. only show two color guides.

**Mild: consider to avoid**

**Priority: Avoid**

Everything on the list of minerals / nutrients has a level under 25%. **We report only under this threshold because 25% is the point at which you would expect to start experiencing symptoms from a deficiency.** However, your samples have been tested against all 70 nutrients and all 1096 items in general.

**If you want to learn more about the items that we tested please refer to Improve the quality of your life and health guide**

Many of you have spent thousands of dollars on supplements, doctors and programs. You've tried lots of different diets. Maybe they worked for a while... but you still haven't gotten results. Perhaps you are told by the "experts" that you just have to live with your symptoms. **But In fact, most people can eliminate most of their symptoms in just 30 days.**

### **I know some foods that I eat make me sick but they don't show up in my results; why?**

One reason you might be surprised by your results is because the food that you are actually intolerant to causes inflammation in your digestive system. This is a natural response from the immune system to neutralize what it thinks are foreign intruders in the body. Then, while this inflammation attack is occurring, the other foods that you eat (the foods you think make you feel sick) can compound the inflammatory response even more, causing negative symptoms.

### **I eat some of the foods I'm intolerant to all the time and feel fine; why?**

The delayed reaction that is common in food intolerance make it hard to pinpoint exactly which foods are causing problems. In fact, sometimes food intolerance related symptoms don't appear for up to 48 hours. So, for instance, you might eat something and feel fine, but then several hours (or days) later you might feel a negative reaction and attribute it to the wrong foods.

However, it's important to be aware of all the different versions or products that particular food is found in. For instance, you may only have an intolerance to tomato but will then also have to avoid pasta sauces, pizza, ketchup, certain chips and other tomato products.

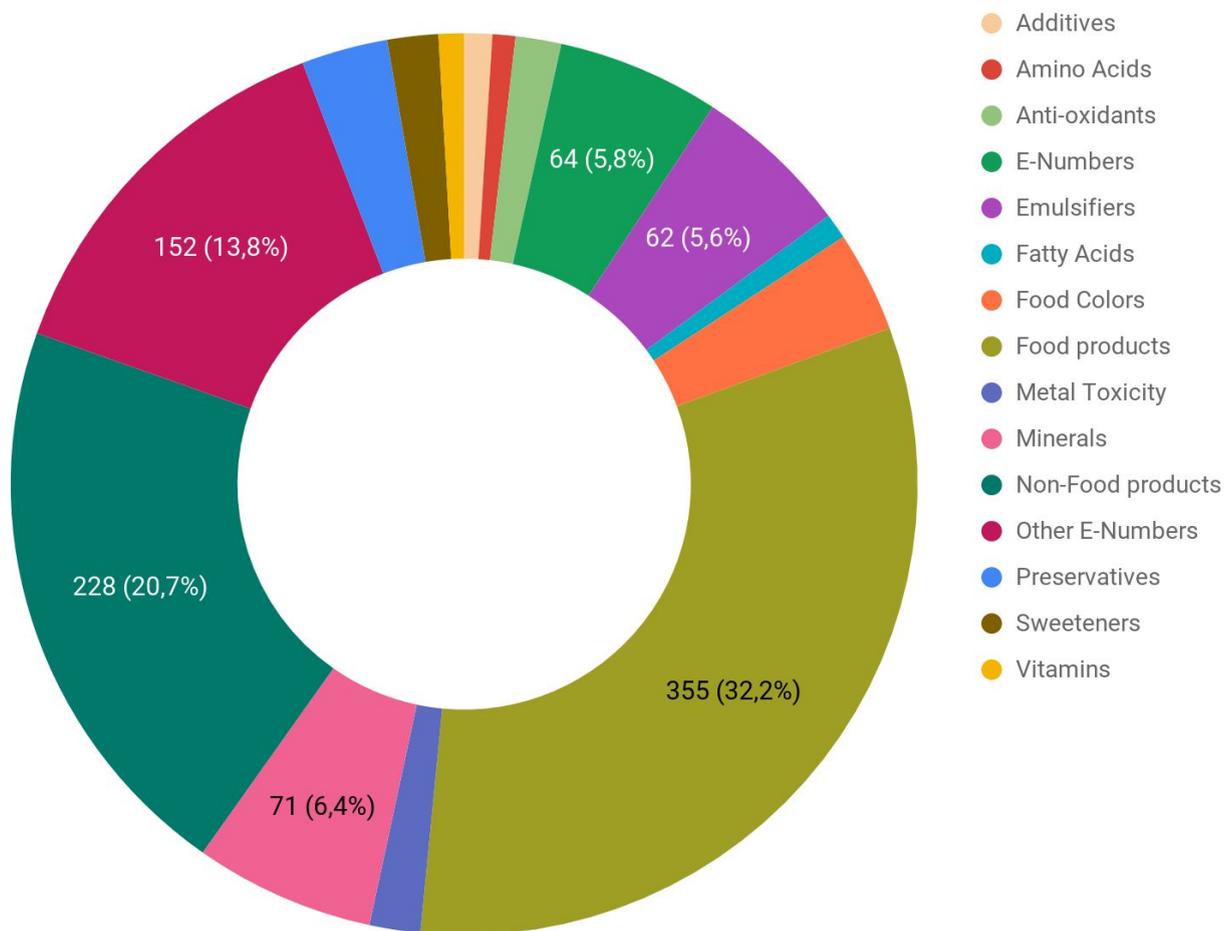
### **I am allergic to a food but it did not show up on the results; why?**

InnerHealth4You.com analyzes your hair sample for intolerances only and not allergic reactions. An IgG antibody response, the kind of antibody the body releases when dealing with a food intolerance, is different than an IgE antibody response which pertains mainly to allergic reactions. InnerHealth4You.com does not test for IgE antibodies. In other words you can be allergic to a food, but, unless you're also intolerant to it, it will not show up in your report.

### **I'm intolerant to a food that I've never eaten; why did it show up on my results?**

While you may not think you've ever eaten a particular food, it is still possible that the protein found in that food was included into some processed good that you've previously consumed. Because InnerHealth4You.com does test your reaction to individual food proteins, it is possible that your body is intolerant to the protein found in gluten while still testing negative for the protein found in barley, oat, wheat or spelt. Still, since these items contain gluten, it is recommended that you avoid them.

**Your hair and saliva samples are tested on 1069 items, the table view below is a representation of the ratio between the tested items. Please refer to the separate lists for details on your results on these items on the next pages.**



# Your personal results



## Spices

Safe to Average	Mild: eat with moderation	Priority: avoid at least 30 days
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Coriander	
Turmeric	
Fenugreek	
Cayenne	58%
Cumin	
Black pepper	53%
Fennel	



## Food Products

Safe to Average	Mild: eat with moderation	Priority: avoid at least 30 days
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<p><b>Cow's milk products</b>                  The intolerance to cow's milk is to cows milk as a whole and not any individual ingredient/part. You should avoid all items that contain cow's milk.  <b>With a cow's milk intolerance</b> it is recommended that you avoid the following foods including but not limited to: Butter, Casein &amp; caseinates, Cheese Cream, Whipped Cream, Curds, Dairy product solids Galactose, Ice Cream Lactate solids, Lactoglobulin Lactose, Lactulose Milk, Milk fat, Sour cream, Whey, Yogurt. Also avoid milk from goats, sheep and other mammals.</p> <p><b>Be Aware</b></p> <p><b>1. Non dairy on a label does not mean that it is safe</b> There are products, such as non dairy creamers, that actually have milk ingredients. The label should include the term "milk,"but seeing "non dairy could be misleading.</p> <p><b>2:</b> Milk may be found in cosmetics, nutritional supplements and medicines.</p> <p><b>3:</b> Among people with milk allergy, about 10% may react to beef, especially if it is rare, because some proteins that cause</p>	<p>71%</p>
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<p>allergy in some people are in both the cow's milk and blood</p> <p><b>4:</b> Sometimes fish or shellfish are "dunked" in milk or have milk protein added to reduce odors or change the consistency, so watch out for this practice and choose fresh forms.</p> <p><b>The signs of lactose intolerance typically occur within 2 hours after consuming milk-based products.</b></p> <p>Abdominal bloating, pain, or cramps.          Borborygmi (rumbling or gurgling sounds in the stomach)          Diarrhea.          Flatulence, or gas.          Nausea, which may be accompanied by vomiting.</p>	
<p><b>Gluten</b></p> <p>The name of a group of proteins that, like the carbohydrate starch, is found in the endosperm of some grains (wheat such as common wheat, durum and spelled, as well as rye and barley) and the products made of it. The protein of common wheat consists of about 58-65% gluten, with durum it is between 56 and 64%.</p> <p><b>Here are the some signs and symptoms of gluten intolerance.</b></p> <p>Bloating. Bloating is when you feel as if your belly is swollen or full of gas after you've eaten. ...</p> <p>Diarrhea, Constipation and Smelly Feces. ...</p> <p>Abdominal Pain. ...</p> <p>Headaches. ...</p> <p>Feeling Tired. ...</p> <p>Skin Problems. ...</p> <p>Depression. ...</p> <p>Unexplained Weight Loss.</p>	<p>68%</p>
<p><b>Carbonated drinks</b></p> <p>The air bubbles in carbonated drinks – even if they're diet – will expand inside</p>	<p>63%</p>

<p>your GI tract, causing it to swell like a balloon filled with air.</p>	
<p><b>Chocolate</b> Made with the cocoa bean.</p> <p><b>Some symptoms after eating it</b> cold-like <b>reactions</b>, including a runny nose, watery eyes, nasal congestion, and sneezing. digestive problems, including abdominal pain, stomach cramps, gas, and bloating. <b>symptoms</b> of asthma caused by too much histamine in the lungs. skin<b>reactions</b>, including itching, hives, or eczema.</p>	
<p><b>Soy</b></p> <p><b>Soy allergy symptoms can include:</b></p> <p><i>Tingling in the mouth</i></p> <p><i>Hives; itching; or itchy, scaly skin (eczema)</i></p> <p><i>Swelling of the lips, face, tongue and throat, or other body parts</i></p> <p><i>Wheezing, a runny nose or breathing difficulty</i></p> <p><i>Abdominal pain, diarrhea, nausea or vomiting</i></p> <p><i>Skin redness (flushing)</i></p>	<p>52%</p>
<p><b>Ovalbumin</b></p> <p>Egg white protein. Be Aware: eggs may be found in cosmetics, nutritional supplements and medicines. Also avoid other poultry eggs, like quail</p> <p><b>What are the symptoms of being intolerant to egg?</b></p> <p>Wheezing or difficulty breathing.</p> <p>Skin issues such as swelling, rashes or hives.</p> <p>Sneezing, watery eyes and a runny nose.</p> <p>Stomach pain, vomiting, nausea or diarrhoea.</p>	

<p><b>Sesame</b> Has one of the highest oil contents of any seed. With a rich, nutty flavor, it is a common ingredient in cuisines across the world. Like other nuts and foods, it can trigger allergic reactions in some people.</p> <p><b>Some common symptoms to watch out for if you have a sesame allergy:</b>          difficulty breathing.          coughing.          low pulse rate.          nausea.          vomiting.          itchiness inside the mouth.          abdominal pain.          flushing in the face.</p>	<p>56%</p>
<p><b>Poppy Seed</b></p> <p>Seeds are used whole or ground into meals as an ingredient in many foods – especially in pastry and bread and they are pressed to yield poppy seed oil.</p> <p>Spices may produce mild <b>symptoms</b>: itching, swelling, burning at lips, tongue and palate or severe local <b>reactions</b> in and around the mouth: swelling of the throat, flush, breathing problems, stomach indigestion, vomiting, diarrhoea, and systemic <b>reactions</b> such as hayfever, asthma and anaphylactic shock.</p>	<p>56%</p>
<p><b>Mustard seeds</b></p> <p>The small round seeds of various mustard plants. The seeds are usually about 1 to 2 millimetres (0.039 to 0.079 in) in diameter and may be colored from yellowish white to black. They are an important spice in many regional foods and may come from one of three different plants: black mustard (<i>Brassica nigra</i>, brown Indian mustard (<i>B. juncea</i>), or white/yellow mustard.</p> <p>Grinding and mixing the seeds with water, vinegar or other liquids</p>	

<p>creates the yellow condiment known as prepared mustard.</p> <p><b>The most common symptoms of mustard allergy are:</b></p> <p>itching, hives, or skin rash. trouble breathing, wheezing, and nasal congestion. feeling dizzy, faint, or lightheaded. nausea, vomiting, diarrhea, and abdominal pain. swelling of the throat, face, tongue, and lips (this <b>symptom</b> requires emergency medical care)</p>	
<p><b>Asparagus, broccoli and cabbage</b></p> <p>These veggies also contain raffinose, a sugar that remains undigested until it reaches the large intestine, where it's fermented by methane-producing bacteria. Eat these in moderation, and couple them with other foods – doing so will help prevent bloating. And keep in mind: “Your body digests them better when they’re cooked, not raw.”</p>	
<p><b>Beef</b></p> <p>The culinary name for meat from cattle, particularly skeletal muscle. Humans have been eating beef since prehistoric times.<sup>1</sup> Beef is a source of high-quality protein and nutrients.</p> <p><b>Be Aware:</b> having an intolerance to beef likely means having an intolerance to veal.</p> <p><b>Symptoms</b></p> <p>Hives or skin rash. Nausea, stomach cramps, indigestion, vomiting, diarrhea. Stuffy/runny nose.</p>	

<p>Sneezing. Headaches. Asthma.</p>	
<p><b>Fish Allergy Symptoms</b> Hives or a skin rash. Nausea, stomach cramps, indigestion, vomiting and/or diarrhea. Stuffy or runny nose and/or sneezing. Headaches. Asthma. Anaphylaxis (less common), a potentially life-threatening <b>reaction</b> that impairs breathing and can cause the body to go into shock.</p>	
<p><b>Eggplant</b> A person may have eaten <b>eggplant</b> before with no effects and still develop an <b>allergy</b> later. Potato plants are part of the nightshade family, which also includes <b>eggplants</b>, tomatoes, paprika, and bell peppers. Potato <b>allergies</b> can cause itching, hives, and nausea.</p> <p><b>Eggplant allergy symptoms</b> hives. itchy or tingly lips, tongue, or throat. coughing. stomach pain or cramping. vomiting. diarrhea.</p>	
<p><b>Bell pepper</b> <b>Allergy to bell pepper</b> is reported with respiratory <b>symptoms</b> rather than reactions of the mouth or skin (most commonly rhinoconjunctivitis but also asthma) which is slightly unusual.</p> <p><b>Symptoms</b></p>	

<p>Hives and skin rashes                  Itchiness                  Nausea                  Vomiting                  Excessive mucus production                  Achy muscles and joints                  Inflammation</p>	
<p><b>Tomato</b>  <b>Symptoms</b> of a <b>tomato allergy</b> usually occur shortly after the <b>allergen</b> is consumed. They include: skin rash, eczema, or hives (urticaria) abdominal cramps, nausea, vomiting, or diarrhea</p>	
<p><b>Chicken</b>  <b>Symptoms after eating or coming into contact with chicken meat:</b>                  coughing or wheezing.                  red, irritated skin.                  hives.                  an inflamed or swollen throat.                  swollen tongue or lips.                  sneezing.                  nausea or vomiting.                  stomach cramps.</p>	
<p><b>Horseradish</b>                  Root vegetable used as a spice, most commonly used as a sauce  <b>Horseradish</b> can cause side effects including stomach upset, bloody vomiting, and diarrhea. It may also slow down the activity of the thyroid gland. When used on the skin, <b>horseradish</b> is POSSIBLY SAFE when preparations containing 2% mustard oil or less are used, but it can cause skin irritation and <b>allergic</b> reactions.</p>	
<p><b>Corn</b>  <b>Allergy symptoms include:</b>                  Hives or skin rash.</p>	

<p>Nausea, stomach cramps, indigestion, vomiting or diarrhea. Stuffy or runny nose. Sneezing. Headache. Asthma. Anaphylaxis, a possibly life-threatening <b>reaction</b> that hinders breathing and can send the body into shock.</p>	
<p><b>Onion (including leek)</b></p> <p>The onion, also known as the bulb onion or common onion, is a vegetable that is the most widely cultivated species of the genus <i>Allium</i>. Its close relatives include the garlic, leek, chive, and Chinese onion.</p> <p>An individual's response or allergic reaction may show up at different times and at varying degrees. Some people have immediate reactions, while others don't exhibit symptoms for at least 24 hours.</p> <p>The degree of their allergic reaction depends on how sensitive they are to onions. As for the healing time, most people feel better as soon as the allergen is expelled from their body.</p> <p>There are rare cases though, where the allergic reaction lasts for days, even after the onion has been out of the system.</p> <p>List of common symptoms:</p> <p>Rashes or dry skin flakes</p> <p>Hives</p> <p>Fatigue</p> <p>Itching</p>	

<p>Lip swelling</p> <p>Mental disorientation</p> <p>Breathing difficulties</p> <p>Swelling of different body parts</p> <p>Bloating</p> <p>Gas and too much burping</p> <p>Fainting</p> <p>Asthma</p> <p>Diarrhea</p> <p>Reflux Esophagitis</p> <p>Nausea</p> <p>Sore throat</p> <p>Puffy eyes and face</p> <p>Mouth blisters</p> <p>Gum blisters</p> <p>Burning sensation on the mouth</p> <p>Tongue blisters</p> <p>Anaphylactic shock</p>	
<p><b>Pork</b></p> <p>Symptoms most often include urticaria/angioedema, oral <b>allergy</b> syndrome, gastrointestinal symptoms (such as nausea, vomiting, and diarrhea)</p>	
<p><b>Celery</b></p> <p>Celery is a marshland plant in the family Apiaceae that has been cultivated as a</p>	

<p>vegetable since antiquity. Celery has a long fibrous stalk tapering into leaves. Depending on location and cultivar, either its stalks, leaves, or hypocotyl are eaten and used in cooking.</p> <p>The most common <b>symptoms</b> of <b>celery allergy</b> are a tingling or itchy mouth or throat, but can also include nettle <b>rash</b> (otherwise known as hives or urticaria) anywhere on the body.</p>	
<p><b>Citrus</b></p> <p>A genus of flowering trees and shrubs in the rue family, Rutaceae. Plants in the genus produce citrus fruits, including important crops like oranges, lemons, grapefruit, pomelo and limes.</p> <p>Most people who have a <b>citrus allergy</b> experience <b>symptoms</b> after eating food or a drink made with raw <b>citrus</b> fruit. The <b>symptoms</b> are often localized, which means that you feel them wherever the raw fruit touched your skin. <b>Symptoms</b> include: intense tingling and itching of the lips, tongue, and throat.</p>	
<p><b>Seafood</b></p> <p>Any form of sea life regarded as food by humans. Seafood prominently includes fish and shellfish. Shellfish include various species of molluscs, crustaceans, and echinoderms.</p> <p>Clams, mussels, oysters, winkles, and scallops. Some crustaceans that are commonly eaten are shrimp, lobsters, crayfish, and crabs.</p> <p><b>Symptoms of a shellfish allergy may include: tingling</b> in the mouth.</p>	

<p><b>abdominal pain, nausea, diarrhea, or vomiting. congestion, trouble breathing, or wheezing.</b></p> <p>skin reactions including <b>itching, hives, or eczema. swelling</b> of the face, lips, tongue, <b>throat</b>, ears, fingers, or <b>hands. lightheadedness, dizziness, or fainting.</b></p>	
<p><b>Brussel Sprouts</b></p> <p>Allergy Symptoms Below are some of the primary symptoms of Brussel Sprouts Allergy which is very similar to other forms of food allergy:</p> <p>Itching Swelling of face, arms and feet Skin rash Difficulty in breathing Skin color changes Runny nose Headaches Stomach pain Drop in blood pressure Dizziness Allergic reactions spreading all over the body rapidly</p>	
<p><b>Flaxseed</b></p> <p>Also known as linseed – used in oils and baking</p> <p>You should discontinue and avoid the use of <b>flaxseed</b> oil if you notice itching, swelling, redness, or hives when you ingest it. Vomiting and nausea may also be <b>signs</b> of an <b>allergy</b>. See a medical center immediately if your <b>reaction to flaxseed oil causes</b> your throat to tighten or shortness of breath.</p>	

<p><b>Potato</b></p> <p><b>Symptoms of a potato allergy?</b> sneezing. runny nose. watery, swollen, or itchy eyes. sore or scratchy throat. itchy skin or an eczema-like rash. hives. swelling of the mouth, tongue, or throat. difficulty breathing.</p>	
<p><b>Beets</b></p> <p>People who are allergic to the alkaloids in nightshades may experience one or more of the following symptoms after eating a vegetable from the nightshade family: hives and skin rashes. itchiness. nausea.vomiting. excessive mucus production. achy muscles and joints. Inflammation.</p>	

## **Fruits**

OAS and fruit allergies can trigger symptoms that range from uncomfortable to severe and even life-threatening.

Common signs and symptoms include: itching or tingling in the mouth, swelling of tongue, lips, and throat, sneezing and nasal congestion, lightheadedness, nausea, abdominal pain, diarrhea. In some cases, a life-threatening reaction called anaphylaxis may occur.

Seek emergency medical attention if you experience any of the following: throat swelling, airway constriction, rapid pulse, dizziness, loss of consciousness, low blood pressure, shock.

## **Food intolerance**

For some people, reaction to food isn't a true allergy but rather a food intolerance. Because food allergies and food intolerances often have similar signs and symptoms, they can be mistaken for each other.

If think you might have one of these conditions, see your doctor for a diagnosis to identify the source of your discomfort.

Many factors can cause intolerance, such as: irritable bowel syndrome (IBS), lactose intolerance, non-celiac gluten sensitivity, food additives, such as sulfites used for, preserving dried fruit.

**In regards to fruit, a food intolerance is often a sensitivity to chemicals** that naturally occur in a specific fruit.

Sometimes, it's an inability to digest the natural sugar found in fruits (fructose).

	<p><b>Barley</b>  A major cultivated cereal grain. Often in beer</p> <p>As with reactions to other foods, the <b>symptoms</b> of a wheat <b>allergy</b> may include: Hives or skin rash. Nausea, stomach cramps, indigestion, vomiting or diarrhea. Stuffy or runny nose.</p>	
	<p><b>Lentils.</b></p> <p>Some of the sugars they contain are difficult for your body to break down, which leads to gas and bloating. Stick to small portions or take Beano, a digestive enzyme product, beforehand.</p>	
	<p><b>Pineapple</b></p> <p><b>In addition to digestive symptoms, pineapple allergy symptoms can include:</b></p> <p>swelling of the face, tongue, throat, and lips.  difficulty breathing.  flushing of the face.  intense itching or hives.  constipation.  sinus congestion.  metallic taste in the mouth.  dizziness.</p>	
	<p><b>Strawberries</b></p> <p><b>Symptoms of a strawberry allergy include:</b></p> <p>itching and inflammation of the throat and mouth.  itchy skin.  hives.  coughing and wheezing.  dizziness or lightheadedness.</p>	

<p>diarrhea. vomiting. a feeling of tightness in the throat.</p>	
<p><b>Watermelon</b> <b>Watermelon allergy symptoms</b> hives. itchy or tingly lips, tongue, or throat. coughing. stomach pain or cramping. vomiting. diarrhea.</p>	
<p><b>Papaya</b> <b>Symptoms</b> hives or rash. tingly or itchy mouth. swelling of the lip, tongue, throat, or face. vomiting and diarrhea. cramping. coughing. difficulty breathing. dizziness.</p>	
<p><b>Peaches</b></p> <p>Most of the patients <b>allergic</b> to peach notice itching of mouth and throat, and itching, redness and swelling of the lips, within the 5-15 minutes after eating the fruit, or even while chewing and swallowing it. These <b>symptoms</b> relapse 15 to 60 minutes later. This is known as the “oral <b>allergy</b> syndrome”.</p>	
<p><b>Sunflower seed</b></p> <p><b>Symptoms of sunflower seed allergy</b> are similar to many other <b>allergies</b>, including peanut <b>allergy</b>. <b>Symptoms range from mild to severe and can include:</b> eczema.</p>	

<p>itchy mouth. unsettled stomach. vomiting. anaphylaxis.</p>	
<p><b>Alcohol</b></p> <p>Alcohol has a lot of sugar that helps things like yeast and harmful bacteria in your gut thrive. So when you eliminate alcohol, you may feel better in a few weeks, not just because of the absence of a sleep disruptor and a depressant in your life, but because you've actually changed the flora in your gut that are critical to keeping you healthy.</p>	
<p><b>Cauliflower</b></p> <p>Contain raffinose, a sugar that remains undigested until it reaches the large intestine, where it's fermented by methane-producing bacteria. Eat these in moderation, and couple them with other foods – doing so will help prevent bloating. And keep in mind: "Your body digests them better when they're cooked, not raw."</p>	
<p><b>All beans.</b></p> <p>Some of the sugars they contain are difficult for your body to break down, which leads to gas and bloating. Stick to small portions or take Beano, a digestive enzyme product, beforehand.</p> <p><b>Be Aware:</b> Beans can be dried and used as a flour some pastas are fortified with beans such as chickpeas, lupines or lentils</p>	
<p><b>Peanuts</b></p> <p>The peanut, also known as the groundnut or</p>	

<p>the goober and <u>taxonomically classified</u> as <i>Arachis hypogaea</i>, is a <u>legume crop</u> grown mainly for its edible seeds. Be Aware: peanuts may be found in cosmetics, medicines and supplements.</p> <p><b>Peanut allergy signs and symptoms can include:</b> Runny nose. Skin reactions, such as hives, redness or swelling. Itching or tingling in or around the mouth and throat. Digestive problems, such as diarrhea, stomach cramps, nausea or vomiting. Tightening of the throat. Shortness of breath or wheezing.</p>	
<p><b>Caffeine</b> <b>Common Allergic Reactions to Caffeine</b> Skin problems such as hives, eczema, rashes, acne, severe itching. Headaches or migraines. Anxiety and panic attacks. Can't focus or concentrate. Tongue, glands, or throatswelling. Heart racing or palpitations. Angry, irritable, bad mood. Fatigue.</p>	



## Nuts

Safe to Average	Mild: eat with moderation	Priority: avoid at least 30 days
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Almonds	
Brazil Nuts	
Cashews	
Chestnuts	
Hazelnuts	
Macadamia nuts	
Pecans	
Pistachios	
Pine nuts	
Shea nuts	
Walnuts.	



## Non Food

<b>Non-Food Products</b> Mild: consider to avoid	Priority: Avoid
<b>Mugwort</b> Aromatic plant. Occasionally used in food and beer.	
<b>Safflower</b> highly branched, herbaceous, thistle-like annual plant	
<b>Grey Alder</b> A tree.	
<b>Ficus</b> common symptoms when it comes to plant allergies are: Irritated, red, itchy or watery eyes. Congestion. Tiredness  Puffiness or darkness under the eyes. Sneezing. Runny nose.	
<b>Marguerite (Leucanthemum vulgare)</b> A type of daisy flower. Also known as the Oxeye daisy	
<b>Mixed Grass Pollens - Group 4</b> Cocksfoot, Meadow fescue, Ryegrass, Timothy, Meadow grass	
<b>Dust Mite</b> House dust mites are a large number of mites found in association with dust in dwellings	
<b>Bamboo Shoot</b> A young shoot of bamboo. Can be eaten as a vegetable.	

**Dog Dander**



## Vitamins

<b>Safe to Average</b>	<b>Consider: Increase intake</b>	<b>Priority: increase intake</b>
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Vitamin A	
Vitamin B1	
Vitamin B2	
Vitamin B3	
Vitamin B12	
Vitamin B5	
Vitamin B6	
Vitamin C	
Vitamin D	
Vitamin E	



## Minerals / Nutrients

Safe to Average	Consider: Increase intake	Priority: increase intake
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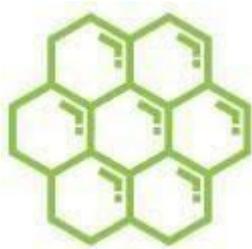
Acidophilus		
Allium		
Alpha Lipoic Acid		
Anthocyanidins		
Ascorbic Acid		
Beta-Carotene		
Betaine		
Bioflavonoids		
Biotin		
Bromelain		
Calcium		
Carotenoids		

Choline	
Chromium	
Citrus bioflavonoids	
<b>Co-Q-10</b> Coenzyme is a compound that generates energy in your cells and has a wide range of health benefits	
Copper	
Creatine	
Cystine	
Docosahexaenoic acid	
Eicosapentaenoic acid	
Ellagic acid	
Fiber	
Flavonoids	
Folate	
Folic acid	
Formic acid	
Gallic acid	
Genistein	
Germanium	

Glutamine	
Glutathione	
Inositol	
Iodine	
Iron	
Iso-Flavonoids	
L-Carnitine	
Lactic acid	
Lecithin	
Lignans	
Lutein	
Lycopene	
Magnesium	
Malic acid	
Manganese	
Melatonin	
Molybdenum	
Niacin	

Nicotinic acid	
Nucleic acid	
Omega 3	
Omega 6	
Oxalic acid	
Pantothenic acids	
Para Aminobenzoic acid	
Phosphorus	
Phytosterols	
Polyphenols	
Potassium	
Proanthocyanidins	
Pyridoxine	
Salicylic acid	
Saponins	
Selenium	
Silica	
Sodium	

Sulforaphane	
Tannins	
Tartaric acid	
Taurine	
Uric acid	
Zeaxanthin	
Zinc	Zinc is an essential mineral for over 200 processes in the body. Some of the symptoms caused by a deficiency of zinc are acne, eczema, poor wound healing, infertility, loss of taste, and frequent infections



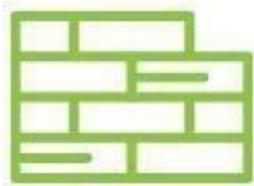
## Antioxidants

Safe to Average	Consider: Increase intake	Priority: Increase intake
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Antioxidants	
<b>E300</b>	Ascorbic acid
<b>E301</b>	Sodium ascorbate
<b>E302</b>	Calcium ascorbate
<b>E304</b>	Fatty acid esters of ascorbic acid
<b>E306</b>	Tocopherols
<b>E307</b>	Alpha-tocopherol
<b>E308</b>	Gamma-tocopherol
<b>E309</b>	Delta-tocopherol
<b>E310</b>	Propyl gallate
<b>E311</b>	Octyl gallate
<b>E312</b>	Dodecyl gallate
<b>E315</b>	Erythorbic acid
<b>E316</b>	Sodium erythorbate
<b>E319</b>	Tertiary-butyl hydroquinone (TBHQ)
<b>E320</b>	Butylated hydroxyanisole (BHA)
<b>E321</b>	Butylated hydroxytoluene (BHT)

<b>E392</b>	Extracts of rosemary
<b>E586</b>	4-Hexylresorcinol

Antioxidants is a collective name for substances such as vitamins E and C, trace elements such as selenium and bioactive substances, such as those present in vegetables and fruit. Antioxidants take away free radicals. These are aggressive substances that in adverse cases can cause damage to cells and tissues. For example, antioxidants can help against this damage and thus possibly prevent long-term diseases such as cancer and cardiovascular disease. **Your score: average.**



## Amino Acids

Amino acids, often referred to as the building blocks of proteins, are compounds that play many critical roles in your body. They're needed for vital processes like the building of proteins and synthesis of hormones and neurotransmitters. Some may also be taken in supplement form for a natural way to boost athletic performance or general condition.

Safe to Average	Consider: Increase intake	Priority: Increase intake
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Phenylalanine		
Valine		
Threonine	<p><b>Threonine:</b> Threonine is a principal part of structural proteins such as collagen and elastin, which are important components of the skin and connective tissue. <u>It also plays a role in fat metabolism and immune function.</u></p>	
Tryptophan		
Methionine	<p><b><u>Methionine plays an important role in metabolism and detoxification.</u></b> It's also necessary for tissue growth and the absorption of zinc and selenium, minerals that are vital to your health.</p>	
Leucine		
Isoleucine		
Lysine	<p><b>Lysine plays major roles</b> in protein synthesis, hormone and enzyme production and the absorption of calcium. <b><u>It's also important for energy production, immune function and the production of collagen and elastin.</u></b></p>	

# Essentials Amino Acids

## Definition, Benefits and Food Sources

Amino acids, often referred to as the building blocks of proteins, are compounds that play many critical roles in your body. They're needed for vital processes like the building of proteins and synthesis of hormones and neurotransmitters. Some may also be taken in supplement form for a natural way to boost athletic performance or general condition.

## What Are Essential Amino Acids?

Amino acids are organic compounds composed of nitrogen, carbon, hydrogen and oxygen, along with a variable side chain group. Your body needs 20 different amino acids to grow and function properly. Though all 20 of these are important for your health, only nine amino acids are classified as essential.

These are histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine. Unlike nonessential amino acids, essential amino acids can't be made by your body and must be obtained through your diet. The best sources of essential amino acids are animal proteins like meat, eggs and poultry. When you eat protein, it's broken down into amino acids, which are then used to help your body with various processes such as building muscle and regulating immune function.

## May Promote Weight Loss

Some human and animal studies have demonstrated that branched-chain essential amino acids may be effective in stimulating fat loss. For example, an eight-week study in 36 strength-trained men found that supplementing with 14 grams of branched-chain amino acids per day significantly decreased body fat percentage, compared to whey protein or a sports drink. **A study showed that a diet composed of 4% supplemental leucine reduced body weight and fat.**

## Conditionally Essential Amino Acids

There are several nonessential amino acids that are classified as conditionally essential. These are considered to be essential only under specific circumstances such as illness or stress. For example, although arginine is considered nonessential, your body can't meet demands when fighting certain diseases like cancer. That's

why arginine must be supplemented through diet in order to meet your body's needs in certain situations.

## Health Benefits of Supplementing With Essential Amino Acids

While essential amino acids can be found in a wide array of foods, taking concentrated doses in supplemental form has been linked to several health benefits. May Help Improve Mood and Sleep. Tryptophan is needed for the production of serotonin, a chemical that acts as a neurotransmitter in your body. Serotonin is an essential regulator of mood, sleep and behaviors.

While low serotonin levels have been linked to depressed mood and sleep disturbances, several studies have shown that supplementing with tryptophan can reduce symptoms of depression, boost mood and improve sleep. A 19-day study in 60 older women found that 1 gram of tryptophan per day led to increased energy and improved happiness, compared to a placebo.

## Food Sources and Recommended Intake

Since your body cannot produce essential amino acids, they must be provided through your diet. Fortunately, many foods are rich in essential amino acids, making it easy to meet your daily needs.

The US recommended daily allowances per 2.2 pounds (1 kg) of body weight for the nine essential amino acids are:

Histidine: 14 mg	Isoleucine: 19 mg	Leucine: 42 mg	Lysine: 38 mg
Methionine (+ the non-essential amino acid cysteine): 19 mg	Phenylalanine (+ the non-essential amino acid tyrosine): 33 mg	Threonine: 20 mg	Tryptophan: 5 mg
Valine: 24 mg			

Foods that contain all nine essential amino acids are referred to as complete proteins. Complete protein sources include:

Meat	Seafood	Poultry	Eggs	Dairy Products
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Soy, quinoa and buckwheat are plant-based foods that contain all nine essential amino acids, making them complete protein sources as well. Other plant-based sources of protein like beans and nuts are considered incomplete, as they lack one or more of the essential amino acids.

However, if you're following a plant-based diet, you can still ensure proper intake of all essential amino acids as long as you eat a variety of plant proteins each day. For example, choosing a variety of incomplete proteins such as beans, nuts, seeds, whole grains and vegetables can ensure that your essential amino acid needs are met, even if you choose to exclude animal products from your diet.

## The Bottom Line

There are nine essential amino acids, which you must get through your diet: histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine. They're vital for functions such as protein synthesis, tissue repair and nutrient absorption. **Some may also prevent muscle loss and improve mood, sleep, athletic performance and weight loss.**

Fortunately, these vital compounds are found in many animal- and plant-based foods, helping you meet your daily needs through a healthy and balanced diet.

The nine essential amino acids perform a number of important and varied jobs in your body:

1. **Phenylalanine:** Phenylalanine is a precursor for the neurotransmitters tyrosine, dopamine, epinephrine and norepinephrine. It plays an integral role in the structure and function of proteins and enzymes and the production of other amino acids.

2. **Valine:** Valine is one of three branched-chain amino acids, meaning it has a chain branching off to one side of its molecular structure. Valine helps stimulate muscle growth and regeneration and is involved in energy production.
3. **Threonine:** Threonine is a principal part of structural proteins such as collagen and elastin, which are important components of the skin and connective tissue. It also plays a role in fat metabolism and immune function.
4. **Tryptophan:** Though often associated with causing drowsiness, tryptophan has many other functions. It's needed to maintain proper nitrogen balance and is a precursor to serotonin, a neurotransmitter that regulates your appetite, sleep and mood.
5. **Methionine:** Methionine plays an important role in metabolism and detoxification. It's also necessary for tissue growth and the absorption of zinc and selenium, minerals that are vital to your health.
6. **Leucine:** Like valine, leucine is a branched-chain amino acid that is critical for protein synthesis and muscle repair. It also helps regulate blood sugar levels, stimulates wound healing and produces growth hormones.
7. **Isoleucine:** The last of the three branched-chain amino acids, isoleucine is involved in muscle metabolism and is heavily concentrated in muscle tissue. It's also important for immune function, hemoglobin production and energy regulation.
8. **Lysine:** Lysine plays major roles in protein synthesis, hormone and enzyme production and the absorption of calcium. It's also important for energy production, immune function and the production of collagen and elastin.
9. **Histidine:** Histidine is used to produce histamine, a neurotransmitter that is vital to immune response, digestion, sexual function and sleep-wake cycles. It's critical for maintaining the myelin sheath, a protective barrier that surrounds your nerve cells.

**ALERT:** Essential amino acid deficiencies can negatively impact your entire body including your nervous, reproductive, immune and digestive systems.



## Sweeteners

Mild: consider to avoid	Priority: Avoid
<p><b>E420</b></p> <p>Sorbitol is a sugar alcohol that contains fewer calories than sugar and is often added to sugar-free foods and drinks. In some cases, it may cause digestive issues due to its laxative effects.</p>	<p>(i) Sorbitol</p> <p>(ii) Sorbitol syrup</p>
<p><b>E421</b></p>	<p>Mannitol</p>
<p><b>E950</b></p>	<p>Acesulfame K</p>
<p><b>E951</b></p> <p>Aspartame is a calorie-free artificial sweetener that's often added to diet products. One review found that it may not help reduce calorie intake or body weight, compared to regular sugar.</p>	<p>Aspartame</p>
<p><b>E952</b></p>	<p>Cyclamic acid and its Na and Ca salts</p>
<p><b>E953</b></p>	<p>Isomalt</p>
<p><b>E954</b></p> <p>Saccharin is a non-nutritive sweetener that may aid weight loss by reducing calorie intake. However, it may also alter your gut microbiome, which is involved in many aspects of health and disease.</p>	<p>Saccharin and its Na, K and Ca salts</p>

<p><b>E955</b></p> <p>Sucralose is commonly found in Splenda. Research shows that this sweetener may decrease beneficial gut bacteria, increase inflammation, and lead to weight gain.</p>	<p>Sucralose</p>
<p><b>E957</b></p>	<p>Thaumatococcus</p>
<p><b>E959</b></p>	<p>Neohesperidine DC</p>
<p><b>E960</b></p>	<p>Steviol glycoside</p>
<p><b>E961</b></p>	<p>Neotame</p>
<p><b>E962</b></p>	<p>Salt of aspartame-acesulfame</p>
<p><b>E964</b></p>	<p>Polyglycitol syrup</p>
<p><b>E965</b></p>	<p>(i) Maltitol (ii) Maltitol syrup</p>
<p><b>E966</b></p>	<p>Lactitol</p>
<p><b>E967</b></p> <p>Xylitol is a sugar alcohol that has been linked to a number of health benefits. Still, in high amounts, it may cause digestive issues for some, including those with IBS. Plus, it's highly toxic to dogs.</p>	<p>Xylitol</p>
<p><b>E968</b></p>	<p>Erythritol</p>
<p><b>E969</b></p>	<p>Advantame</p>



Sugar substitutes always seem like an OK idea at first. They're low in calories (or don't have any calories at all) and are often touted as healthier than real sugar. But since artificial sweeteners can cause negative side effects — like digestive troubles, headaches, and even dizziness — they may be worth avoiding.

"Not everyone has immediate effects from sugar substitute. "Based on your individual genetics, metabolism, and even microbiome, your tolerance of sugar substitutes will vary." But for those of us who are sensitive, sweeteners — like xylitol, sorbitol, and maltitol — can wreak all sorts of havoc.

"These compounds [like the sugar alcohol xylitol] are among several classes of compounds found in foods that may not be well-digested and as a result can pull water

into your gut, and be the source of food for bacteria to feed on — both resulting in uncomfortable symptoms.

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**If this sounds all too familiar, start reading labels and look for a connection between your symptoms, and all those sugar-free foods. And, don't be afraid to swap 'em out for the real deal. "If you don't tolerate these sugar alcohols, absolutely use real sugar-containing products instead,"If you have any of the symptoms below, the change will definitely be worth it.**

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## Typical Side-effects from Sweeteners

### 1. Dizziness

Aspartame, can really mess with those who are sensitive to it. You might even feel dizzy after consuming it. To test it out, read those labels and keep it out of your diet for a while. You might just feel better.

## **2. Headache**

It's not uncommon to experience headaches — and even migraines — after eating a sugar substitute. And that's just not worth it.

## **3. Mood Changes**

If you gulp down a sugar-free drink and then feel positively awful, it may be that aspartame once again. "It can alter your metabolism and your nervous system. And, scarily enough, it's even been known to cause mood changes in some people.

## **4. Diarrhea**

Sugar alcohols, like xylitol and sorbitol, may seem benign. But for some people, all it takes is one sugar free candy before they're racing off to the bathroom. This is due to the laxative effect of many sugar alcohols.

## **5. Painful Gas**

Read labels to check for those sugar alcohols — like sorbitol, maltitol, xylitol, and isomalt — and see if there's a connection between snacking on them and feeling extra gassy. "They're found in sugar-free foods like gum. "They can cause gas and diarrhea, especially when eaten in excess (like if you chew sugar-free gum all day long,

## **6. Worsening IBS Symptoms**

These compounds [like the sugar alcohol xylitol] are among several classes of compounds found in foods that may not be well-digested and as a result can pull water into your gut, and be the source of food for bacteria to feed on — both resulting in uncomfortable symptoms.

## **7. Bloating**

In the same vein, keep an eye out for painful bloating. "When your body doesn't tolerate sugar substitutes like xylitol, erythritol, isomalt, maltitol, mannitol, and sorbitol, you'll definitely know it. "You might feel gassy, bloated, have intense gas-like pains, feel diarrhea pangs, have diarrhea, and also feel exhaustion as a result."

**8. Inflammation** Because sugar substitutes are chemically altered from their natural form they can react negatively in the body and lead to inflammation. "When the chemical structure of a sugar changes, it also affects how the body respond to it. Often these sugar substitutes are unrecognized by the body, causing inflammation that can possible lead to health complications."

**9. Nausea** Artificial sweeteners can even cause nausea. And this is, once again, all thanks to the fact they're fake. "Sugar substitutes are made of man-made chemicals, which are meant to mimic the sugar molecule," she says. "However, due to its processing, it can sometimes negatively affect people."



**E-Numbers** (Food Colors, Additives, Preservatives, Emulsifiers, Stabilisers, Thickeners and Gelling Agents, Other E-Numbers)

Mild: consider to avoid	Priority: Avoid
<p><b>Sodium sulfite (E221)</b>                      A preservative used in wine production and other processed foods. According to the FDA, one in 100 people is hypersensitive to sulfites in food. The majority of these people are asthmatic, suggesting that there is a link between asthma and sulphites.</p> <p>People who are hypersensitive to sulphite can get headaches, breathing problems and rash</p>	<p>63%</p>
<p><b>E251 Sodium nitrate / E251 Sodium nitrite</b></p> <p>Sodium nitrate (or sodium nitrite) is used as a preservative and coloring and flavoring in bacon, ham, hot dogs, meats, corned beef, smoked fish and other processed meats. This ingredient, which sounds harmless, is in fact very carcinogenic as soon as it enters the human digestive system. There it forms various nitrosamine compounds that enter the bloodstream and cause major damage to various organs: in particular the liver and pancreas.</p> <p>Sodium nitrite is widely known as a poisonous ingredient, and the USDA even tried to ban this addition in the 1970s, but</p>	

<p>that was grounded in by food manufacturers who complained that they had no alternative to preserving pre-packaged meat products. Why is the industry still using it? The answer is simple: because of this chemical, meat becomes bright red. It is actually a color enhancer, which makes old, dead meat look fresh and vibrant.</p> <p><b>Can be found in:</b> hot dogs, bacon, ham, luncheon meat, meats, corned beef, smoked fish and other types of processed meats</p>	
<p><b>E621</b>                  Monosodium Glutamate (MSG) Widely used as a flavour enhancer Those sensitive to monosodium glutamate have felt symptoms including pressure on the head, seizures, chest pains, headache, nausea, burning sensations and tightness of face. Many baby food producers have stopped adding this substance</p> <p><b>E621 breaks the connection between our saturation center in the brain and the stomach so that the brain of the stomach no longer get the signal 'full' and we continue to eat. Monosodium glutamate thus increases the appetite, without the body actually needing food</b></p>	
<p><b>Tartrazine</b>                  Falls into the category 'sodium salt', is extracted from coal tar and is the best known of the so-called azo dyes. The dye is cheap and very soluble in water, and therefore popular with food manufacturers.</p>	63%
<p><b>BHA and BHT (E320)</b>                  Butylhydroxyanisole (BHA) and Butylhydroxytoluene (BHT) are preservatives that can be found in breakfast cereals, chewing gum, chips and vegetable oils. This commonly used preservative ensures that food does not discolour, changes taste or becomes rancid. It affects the neurological system of</p>	

the brain, causes behavioral changes and can cause cancer. BHA and BHT are oxidants that form reactive carcinogens in your body.

**Can be found in:** chips, chewing gum, cereals, frozen sausage, processed rice, lard, shortening, sweets.

## What are The Top 10 E Numbers to Try and Avoid

Many people are concerned about the long-term effects of consuming E numbers and especially the effect they could have on children. Although E numbers do go through lengthy testing processes before being unleashed on the unsuspecting members of the public, sometimes certain numbers do have a negative effect on consumers.

Often it's because a person is particularly sensitive to an ingredient or element within the E number, or because it exacerbates an existing condition they have.

Choosing just 10 E numbers worth avoiding is a bit tricky, as there are lots that it would be ideal to avoid if you're concerned about your health. But the following 10 are at the top of the avoidance list.

### E Numbers To Avoid

1. E102 – tartrazine. This yellow food colouring has already been banned from use in Norway and Austria, yet it's continued being used in food and drinks in the UK. In recent years, since a study found it was linked to hyperactivity in children, the UK government have suggested it should be avoided by children, but adults may well want to avoid it too. E102 is commonly found in products such as mustard, marmalade, jelly, marzipan, ice lollies, fizzy drinks, squash, custard powder and soups.

2. E122 – carmoisine. E122 is a synthetic red dye that's used as a colouring in many foods. Already banned in several countries, including Norway, Japan, America and Sweden, this colouring is found in products such as sweets, yogurts, packet soup, jelly and jam. It has been positively linked to hyperactivity in children and the UK government recommend that children may be better avoiding it, but it can also cause allergic reactions in adults too.

3. E129 – allura red. E129 is a red or orange like synthetic dye which is used as a food colouring in drinks and sweets. **As well as being linked to hyperactive**

**Behaviour** in children, it may also cause allergic skin reactions in adults, especially anyone sensitive to aspirin. It's worth noting that E129 has already been banned in many countries, including France, Germany, Belgium, Austria, Norway and Sweden.

4. E104 – quinoline yellow. As the name suggests, E104 is a synthetic yellow colouring and is used in products such as smoked haddock and scotch eggs to provide a yellow tinge. Already banned in countries such as Japan, America, Australia and Norway, the colouring has been linked to health and hyperactive problems in children.

5. E621 – monosodium glutamate. Otherwise known as MSG, E621 is a flavour enhancer that's commonly used to pep up food products and make them taste better. Unfortunately, it is known to cause problems for some people – and certain people seem to be more sensitive to its effects than others. Amongst the known side effects, MSG can cause symptoms such as headaches, nausea, dizziness, muscle pain, palpitations and even pain.

6. E951 – aspartame. E951 is an artificial sweetener that's commonly used as a sweetening ingredient. In particular, it's often found in products aimed at dieters or diabetics, such as desserts, low-fat foods, low sugar drinks, snacks and sweets. It's well known to be linked to problems in people who suffer from the condition PKU, and they are well advised to avoid it completely. But aspartame has become a concern to other people too and side effects, such as headaches, have often been reported.

7. E211 – sodium benzoate. E211 is an E number that's used as a preservative and is found in products such as margarine, salad dressing, soy sauce, sweets and soft drinks. Studies have found that it's linked to hyperactivity in children, plus it may cause reactions in people who have allergic conditions or asthma.

8. E151 – black PN / brilliant black BN. E151 is a form of black synthetic dye that is used as a food colouring in some products. However, concerns have been raised in other countries, as it's been linked to allergic reactions in some people. It is already banned in Australia, Austria, America, Germany, Norway, Sweden, Switzerland, Belgium and France.

9. E133 – Brilliant blue FCF. E133 is another synthetic colouring dye, which adds a blue colour to some products. Some people have been found to experience allergic reactions after consuming products containing E133 and this E number is already banned in Austria, Sweden, Switzerland, France, Germany and Norway.

10. E213 – calcium benzoate. E213 is a form of preservative that's used to lengthen the shelf life of foods and drinks. It's often found in low sugar products, but it has been linked to side

## Gut biome

Safe to Average	Consider Intake	Increase intake
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**Streptococcus Thermophilus**  
 Helps to prevent diarrhoea by maintaining the health of the digestive system



## Hormonal Balance

Safe to Average	Consider Intake	Priority:
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## Metal Toxicity

If you find that when in close proximity of a particular metal that you begin to experience any symptoms (such as itchiness, swelling, nausea, headaches, etc.), then you will know that it is this particular metal that is causing you to react like this. The more severe the symptoms, the more action you will need to take to reduce your exposure to this metal.

Safe to Average	Mild	Avoid
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**Copper**  
 Because it is such a good conductor of electricity, copper is mostly used in electrical generators and motors



**Aluminium**  
 A light silvery metal used for cans, foils, kitchen utensils, window frames, beer kegs



<p><b>Antimony</b> An alloy used for batteries, low friction metals, type metal and cable sheathing</p>	
<p><b>Arsenic (As)</b> A well known compound used for rat poisons and insecticides</p>	
<p><b>Beryllium</b> An alloy used for springs, electrical contacts, spot-welding electrodes</p>	
<p><b>Cadmium</b> A poisonous metal, can be used in rechargeable batteries</p>	
<p><b>Chromium (Cr)</b> It is a steely-grey, lustrous, hard and brittle metal which takes a high polish, resists tarnishing, and has a high melting point</p>	
<p><b>Cobalt (Co)</b> Cobalt are used to make high-speed and high temperature cutting tools and dyes - it is an alloy</p>	
<p><b>Gold</b> In its purest form, it is a bright, slightly reddish yellow, dense, soft, malleable, and ductile metal</p>	
<p><b>Gold</b> In its purest form, it is a bright, slightly reddish yellow, dense, soft, malleable, and ductile metal</p>	
<p><b>Lead (Pb)</b> Most important commercial use of lead is in the manufacture of lead-acid storage batteries</p>	
<p><b>Magnesium (Mg)</b> It is added to cattle feed and fertilisers. Magnesium hydroxide (milk of magnesia), sulfate (Epsom salts), chloride and citrate are all used in medicine.</p>	

<p><b>Manganese (Mn)</b> Used in drinks cans</p>	
<p><b>Mercury (Hg)</b> It is commonly used in batteries, fluorescent lights, felt production, thermometers and barometers</p>	
<p><b>Nickel (Ni)</b> An alloy, used for producing stainless steel.</p>	<p>Be Aware: Nickel can trigger skin sensitivity. They can develop itchy rashes around nickel earrings or necklaces</p>
<p><b>Palladium (Pd)</b> Mainly used in car exhaust manufacture, but can be found in dental fillings and jewellery</p>	
<p><b>Platinum (Pt)</b> Platinum is used in jewelry, decoration and dental work</p>	
<p><b>Silver</b> Used for jewellery and traditional silverware</p>	
<p><b>Strontium (Sr)</b> Used in firework production</p>	
<p><b>Tin (from canned food)</b> Usually combined with steel or aluminium to create storage for food</p>	<p>Usually combined with steel or aluminium to create storage for food</p>
<p><b>Zinc</b> Sources - Beef, spinach, asparagus, lamb, sesame seeds, pumpkin seeds, lentils, cashew nuts, quinoa, turkey, shrimp, tofu, scallops, green peas, oats, yogurt Signs of deficiency - Loss of appetite, Poor sense of smell and taste, Depression, White marks on fingernails</p>	

**This marks the end of your personal report.**

Your Next Steps

## **Drastically reduce and even eliminate your symptoms within 30 Days...**

Many of you have spent thousands of dollars on supplements, doctors and programs. You've tried lots of different diets. Maybe they worked for a while... but you still haven't gotten results. Perhaps you are told by the "experts" that you just have to live with your symptoms.

But In fact, most people can eliminate most of their symptoms in just 30 days.



**30 Days Allergy Relief Program** gets you to the root of your problem, and helps you get results quickly. It's simple and effective and you can do it from the comfort of your own home.

However, this is not for everyone. For some people, staying sick is a way to feel safe. Not everyone is ready for change. If you are not ready to get rid of your symptoms, this may not be for you.

**Please keep in mind... I am not a medical doctor. I cannot diagnose or treat illness. You should consult your doctor before making any changes to your diet or prescriptions.**

InnerHealth4You.com - Your Personal Report

**If you have any concern please contact us directly at**  
[info@innerhealth4you.com](mailto:info@innerhealth4you.com)

**Good Luck!**

[www.innerhealth4you.com](http://www.innerhealth4you.com)

Innerhealth4.com your is part of The Food Intolerance Testing Group.

## We tested your hair and saliva samples on the following 1069 items.

This list is for reference only.

### Additives

#### **E102**

Tartrazine. Widely used yellow food colour. May cause allergic reactions in perhaps 15 percent of the population. It may be a cause of asthmatic attacks and has been implicated in bouts of hyperactivity disorder in children.

Those who suffer from asthma, rhinitis, urticaria may find symptoms worsen after Consumption

#### **E621**

Monosodium Glutamate (MSG) Widely used as a flavour enhancer Those sensitive to monosodium glutamate have felt symptoms including pressure on the head, seizures, chest pains, headache, nausea, burning sensations and tightness of face. Many baby food producers have stopped adding this substance

E621 breaks the connection between our saturation center in the brain and the stomach so that the brain of the stomach no longer get the signal 'full' and we continue to eat.

Monosodium glutamate thus increases the appetite, without the body actually needing food

#### **E131** Food Bleu 5 other names, Acid Blue 3, Sulphan Blue, CI 42051

A dark blue dye that gives food products a deep blue to yellow-green color. Extracted from coal tar, is very soluble in water and a little bit is enough for a deep blue color. That makes the dye cheap for food producers.

**Found in:** pudding powder, cherries, juice, lemonade syrups, pastries, chocolate sweets, vieux, throat pastilles, yoghurt drinks, prawn crackers, chewing gum and sauces.

#### **Glucose Fructose Syrup**

Glucose-Fructose syrup is a highly refined artificial sweetener that today is the main source of calories in America. It is found in almost all processed foods.

With glucose-Fructose syrup the pounds come faster than with any other ingredient, it increases your LDL ("bad") cholesterol level and contributes to the development of diabetes and tissue damage, apart from all kinds of other harmful effects.

**To find in:** most processed foods, bread, sweets, sweetened yogurt, salad dressings, canned vegetables, breakfast cereals

**BHA and BHT (E320)**

Butylhydroxyanisole (BHA) and Butylhydroxytoluene (BHT) are preservatives that can be found in breakfast cereals, chewing gum, chips and vegetable oils. This commonly used preservative ensures that food does not discolour, changes taste or becomes rancid. It affects the neurological system of the brain, causes behavioral changes and can cause cancer. BHA and BHT are oxidants that form reactive carcinogens in your body.

**Can be found in:** chips, chewing gum, cereals, frozen sausage, processed rice, lard, shortening, sweets.

**E220 Sulfur dioxide**

Sulfur additives are toxic and in America the FDA has banned their use in raw fruits and vegetables. The side effects include bronchitis, especially for those who are prone to asthma, hypotension (low blood pressure), tingling or anaphylactic shock. It also destroys vitamin B1 and E. Not recommended for consumption by children. The International Labor Organization in America recommends avoiding E220 if you suffer from conjunctivitis, bronchitis, emphysema, bronchial asthma or cardiovascular disease.

**Can be found in:** beer, soft drinks, dried fruit, juices, liqueurs, wine, vinegar and potato products.

**E924 Potassium bromate**

An addition that is used to increase the volume in white flour, bread and rolls, and is known to cause cancer in animals. Even small amounts in bread can cause problems in people. Can be found in: bread products.

**E124**

In 1990 in America banned after an eight-year discussion about the use in food and cosmetics. However, this dye is still sold as long as supplies last! It has been proven that it caused thyroid cancer and chromosomal damage in experimental animals, and it possibly also upsets the cranial nerve transmission.

**To be found in:** fruit cocktails, maraschino cherries, cherry pie mix, ice cream, sweets, bakery products and more!

**Yellow (E110) and Yellow Tartrazine (E102)**

Prohibited in Norway and Sweden. Increases the number of kidney and adrenal tumors in laboratory animals, can cause chromosomal damage.

**Can be found in:** American cheese, macaroni with cheese, sweets and soft drinks, lemonade and more!

**Sodium sulfite (E221)**

A preservative used in wine production and other processed foods. According to the FDA, one in 100 people is hypersensitive to sulfites in food. The majority of these people are asthmatic, suggesting that there is a link between asthma and sulphites. People who are hypersensitive to sulphite can get headaches, breathing problems and rash

**E251 Sodium nitrate / E251 Sodium nitrite**

Sodium nitrate (or sodium nitrite) is used as a preservative and coloring and flavoring in bacon, ham, hot dogs, meats, corned beef, smoked fish and other processed meats. This ingredient, which sounds harmless, is in fact very carcinogenic as soon as it enters the human digestive system.

There it forms various nitrosamine compounds that enter the bloodstream and cause major damage to various organs: in particular the liver and pancreas. Sodium nitrite is widely known as a poisonous ingredient, and the USDA even tried to ban this addition in the 1970s, but that was grounded in by food manufacturers who complained that they had no alternative to preserving pre-packaged meat products. Why is the industry still using it? The answer is simple: because of this chemical, meat becomes bright red. It is actually a color enhancer, which makes old, dead meat look fresh and vibrant.

**Can be found in:** hot dogs, bacon, ham, luncheon meat, meats, corned beef, smoked fish and other types of processed meats.

## Amino Acids

Assist: Acne, Allergies, Breast cancer, Diabetes, Eczema, Heart Disease, High blood pressure, Obesity, Osteoporosis, PMS, Psoriasis, Rheumatoid, arthritis,  
 Support: Heart disorders and Skeletal system

Phenylalanine

Valine

Threonine

Tryptophan

Methionine

Leucine

Isoleucine

Lysine

Histidine

## Antioxidants

E300 Ascorbic acid	E311 Octyl gallate
E301 Sodium ascorbate	E312 Dodecyl gallate
E302 Calcium ascorbate	E315 Erythorbic acid
E304 Fatty acid esters of ascorbic acid	E316 Sodium erythorbate

E306 Tocopherols	E319 Tertiary-butyl hydroquinone (TBHQ)
E307 Alpha-tocopherol	E320 Butylated hydroxyanisole (BHA)
E308 Gamma-tocopherol	E321 Butylated hydroxytoluene (BHT)
E309 Delta-tocopherol	E392 Extracts of rosemary
E310 Propyl gallate	E586 4-Hexylresorcinol

## E-Numbers

E 100 Curcumin	E 160 Lycopene	E 301 Sodium L-ascorbate (Ascorbic acid)	E 440 Pectin, amidated pectin
E 101 Riboflavin (Vit. B2)	E 161 b Lutein	E 302 Calcium L-ascorbate (Ascorbic acid)	E 460 Cellulose,
E 102 Tartrazine	E 162 Beetroot red (betanin)	E 310 Propyl gallate (Gallate)	E 479 Thermo-oxidised soya oil
E 120 Cochineal, carminic acid,	E 163 Anthocyanins	E 325 Sodium lactate (salts from lactic acid)	E 901 Beeswax, white and yellow
E 1200 Polydextrose	E 170 Calcium carbonate	E 326 Potassium lactate (salts from lactic acid)	E 902 Candelilla wax
E 122 Carmoisine	E 171 Titanium dioxide	E 327 Calcium lactate (salts from lactic acid)	E 903 Carnauba wax
E 123 Amaranth	E 173 Aluminium	E 338 Orthophosphoric acid, Phosphoric acid	E 904 Shellac
E 128 Rot 2 G	E 180 Lithol rubine	E 352 Calcium malate	E 950 Acesulfame K, Acesulfame
E 132 Indigo carmine	E 200 Sorbic acid	E 380 Triammonium citrate (salts from citric acid)	E 951 Aspartame
E 133 Brilliant blue FCF	E 202 Potassium sorbate, sorbic acid	E 403 Ammonium alginate	E 952 Cyclamate, Cyclohexane
E 140 Chlorophylls and chlorophyllins	E 210 Benzoic acid	E 404 Calcium alginate	E 953 Isomalt
E 142 Green	E 211 Sodium benzoate, benzoic	E 405 Propylene glycol alginate	E 954 Saccharin

	acid		
E 150 b Sulphite lye Caramel	E 213 Calcium benzoate, benzoic acid	E 406 Agar	E 965 Maltite, Maltite syrup
E 150 Caramel	E 261 Potassium acetate, salt of acetic acid	E 412 Guar gum	E 966 Lactite
E 151 Brilliant black BN, black PN	E 270 Lactic acid	E 414 Gum arabic	E 967 Xylitol
E 155 Brown	E 296 Malic acid	E 415 Xanthan gum	
E 160 a Carotene (mixed	E 297 Fumaric acid	E 422 Glycerine	

## Emulsifiers

E322 Lecithins	E462 Ethyl cellulose
E400 Alginic acid	E463 Hydroxypropyl cellulose
E401 Sodium alginate	E464 Hydroxypropyl methyl cellulose
E402 Potassium alginate	E465 Ethyl methyl cellulose
E403 Ammonium alginate	E466 Carboxy methyl cellulose
E404 Calcium alginate	E468 Cross Linked sodium carboxy methyl cellulose
E405 Propane-1,2-diol alginate	E469 Enzymatically hydrolysed carboxy methyl cellulose
E406 Agar	E470a Sodium, potassium and calcium salts of fatty acids
E407 Carrageenan	E470b Magnesium salts of fatty acids
E407a Processed eucheuma seaweed	E471 Mono- and diglycerides of fatty acids
E410 Locust bean gum; carob gum	E472a Acetic acid esters of mono- and diglycerides of fatty acids
E412 Guar gum	E472b Lactic acid esters of mono- and diglycerides of fatty acids
E413 Tragacanth	E472c Citric acid esters of mono- and diglycerides of fatty acids
E414 Acacia gum; gum arabic	E472d Tartaric acid esters of mono- and diglycerides of fatty acids
E415 Xanthan gum	E472e Mono- and diacetyltartaric acid esters of mono- and diglycerides of fatty acids

E416 Karaya gum	E472f Mixed acetic and tartaric acid esters of mono- and diglycerides of fatty acids
E417 Tara gum	E473 Sucrose esters of fatty acids
E418 Gellan gum	E474 Sucroglycerides
E425 Konjac	E475 Polyglycerol esters of fatty acids
E426 Soybean hemicellulose	E476 Polyglycerol polyricinoleate
E427 Cassia gum	E477 Propane-1,2-diol esters of fatty acids
E432 Polyoxyethylene sorbitan monolaurate; Polysorbate 20	E479b Thermally oxidised soya bean oil interacted with mono and diglycerides of fatty acids
E433 Polyoxyethylene sorbitan mono-oleate; Polysorbate 80	E481 Sodium stearoyl-2-lactylate
E434 Polyoxyethylene sorbitan monopalmitate; Polysorbate 40	E482 Calcium stearoyl-2-lactylate
E435 Polyoxyethylene sorbitan monostearate; Polysorbate 60	E483 Stearyl tartrate
E436 Polyoxyethylene sorbitan tristearate; Polysorbate 65	E491 Sorbitan monostearate
E440 Pectins	E492 Sorbitan tristearate
E442 Ammonium phosphatides	E493 Sorbitan monolaurate
E444 Sucrose acetate isobutyrate	E494 Sorbitan monooleate
E445 Glycerol esters of wood rosins	E495 Sorbitan monopalmitate
E460 Cellulose	E1103 Invertase
E461 Methyl cellulose	

## Fatty Acids

Assist: Acne, Allergies, Breast cancer, Diabetes, Eczema, Heart Disease, High blood pressure, Obesity, Osteoporosis, PMS, Psoriasis, Rheumatoid, arthritis, Support: Heart disorders and Skeletal system
Omega 3
Omega 6

## Food Colors

E100 Curcumin	E150d Sulphite ammonia caramel
E101 (i) Riboflavin (ii)	E151 Brilliant Black BN; Black PN

Riboflavin-5'-phosphate	
E102 Tartrazine	E153 Vegetable carbon
E104 Quinoline yellow	E155 Brown HT
E110 Sunset Yellow FCF; Orange Yellow S	E160a Carotenes
E120 Cochineal; Carminic acid; Carmines	E160b Annatto; Bixin; Norbixin
E122 Azorubine; Carmoisine	E160c Paprika extract; Capsanthin; Capsorubin
E123 Amaranth	E160d Lycopene
E124 Ponceau 4R; Cochineal Red A	E160e Beta-apo-8'-carotenal (C30)
E127 Erythrosine	E161b Lutein
E129 Allura Red AC	E161g Canthaxanthin
E131 Patent Blue V	E162 Beetroot Red; Betanin
E132 Indigotine; Indigo Carmine	E163 Anthocyanins
E133 Brilliant Blue FCF	E170 Calcium carbonate
E140 Chlorophylls and chlorophyllins	E171 Titanium dioxide
E141 Copper complexes of chlorophyll and chlorophyllins	E172 Iron oxides and hydroxides
E142 Green S	E173 Aluminium
E150a Plain caramel	E174 Silver
E150b Caustic sulphite caramel	E175 Gold
E150c Ammonia caramel	E180 Litholrubine BK

## Food Products

Chicory lettuce	Millet	Sunflower Oil	Turmeric
Cinnamon	Mint (Fresh)	Sunflower Seeds	Turnip
Clams	Molasses	Swede	Vanilla
Clove	Mushrooms	Sweet Freedom	Veal
Coconut	Mustard	Tea (black only)	Venison
Coconut oil	Mutton	Tea (Black)	Vinegar (clear)
Cod	Noodles	Tea (green)	Vinegar (malt)
Coffee (black)	Nutmeg	Tequila	Vodka
Coffee substitute made	Okra	Thyme	Walnuts

Cola	Olive oil	Tomato	Wasabi
Common Mussel	Olives (black)	Trout (Brown)	Watercress
Condensed Milk	Olives (green)	Turkey	Watermelon
Coriander	Onion	Turmeric	Wheat, ground
Cornflakes	Oolong Tea	Turnip	Wheat, whole grain
Cow's milk	Orange juice	Vanilla	Whisky
Crab	Oranges	Veal	White bean
Cranberry juice	Ovaltine	Venison	White pepper
Crayfish	Ox liver	Vinegar (clear)	White Tea
Cream	Oyster	Vinegar (malt)	White Wine
Cress	Oyster Mushroom	Vodka	Whitefish
Cumin	Oyster sauce	Walnuts	Winkles
Currants (red & black)	Papaya	Wasabi	Yeast
Dates	Paprika	Watercress	Yerba mate tea
Dill	Parsley	Watermelon	

## Metal Toxicity

<b>Copper</b> Because it is such a good conductor of electricity, copper is mostly used in electrical generators and motors
<b>Aluminium</b> A light silvery metal used for cans, foils, kitchen utensils, window frames, beer kegs
<b>Antimony</b> An alloy used for batteries, low friction metals, type metal and cable sheathing
<b>Arsenic (As)</b> A well known compound used for rat poisons and insecticides
<b>Beryllium</b> An alloy used for springs, electrical contacts, spot-welding electrodes
<b>Cadmium</b> A poisonous metal, can be used in rechargeable batteries
<b>Chromium (Cr)</b> It is a steely-grey, lustrous, hard and brittle metal which takes a high polish, resists tarnishing, and has a high melting point
<b>Cobalt (Co)</b> Cobalt are used to make high-speed and high temperature cutting tools and dyes - it is an alloy
<b>Gold</b> In its purest form, it is a bright, slightly reddish yellow, dense, soft, malleable, and ductile metal
<b>Lead (Pb)</b> Most important commercial use of lead is in the manufacture of lead-acid storage batteries
<b>Magnesium (Mg)</b> It is added to cattle feed and fertilisers. Magnesium hydroxide (milk of magnesia), sulfate (Epsom salts), chloride and citrate are all used in medicine.
<b>Manganese (Mn)</b> Used in drinks cans
<b>Mercury (Hg)</b> It is commonly used in batteries, fluorescent lights, felt production, thermometers and barometers
<b>Nickel (Ni)</b> An alloy, used for producing stainless steel. Be Aware: Nickel can trigger skin sensitivity. They can develop itchy rashes around nickel earrings or necklaces
<b>Palladium (Pd)</b> Mainly used in car exhaust manufacture, but can be found in dental fillings and jewellery
<b>Platinum (Pt)</b>

Platinum is used in jewelry, decoration and dental work
<b>Silver</b> Used for jewellery and traditional silverware
<b>Strontium (Sr)</b> Used in firework production
<b>Tin</b> (from canned food) Usually combined with steel or aluminium to create storage for food
<b>Zinc</b> Sources - Beef, spinach, asparagus, lamb, sesame seeds, pumpkin seeds, lentils, cashew nuts, quinoa, turkey, shrimp, tofu, scallops, green peas, oats, yogurt Signs of deficiency - Loss of appetite, Poor sense of smell and taste, Depression, White marks on fingernails

## Minerals / Nutrients

Acidophillus	Cystine	L-Carnitine	Para Aminobenzoic acid
Allium	Docosahexaenoic acid	Lactic acid	Phosphorus
Alpha Lipoic Acid	Eicosapentaenoic acid	Lecithin	Phytosterols
Anthocyanidins	Ellagic acid	Lignans	Polyphenols
Ascorbic Acid	Fibre	Lutein	Potassium
Beta-Carotene	Flavonoids	Lycopene	Pro-anthocyanidins
Betaine	Folate	Magnesium	Pyridoxine
Bio-flavonoids	Folic acid	Mallic acid	Salicylic acid
Biotin	Formic acid	Manganese	Saponins
Bromelain	Gallic acid	Melatonin	Selenium
Calcium	Genistein	Molybdenum	Silica
Carotenoids	Germanium	Niacin	Sodium
Choline	Glutamine	Nicotinic acid	Sulforaphane
Chromium	Glutathione	Nucleic acid	Tannins
Citrus bio-flavonoids	Inositol	Omega 3	Tartaric acid
Co-Q-10	Iodine	Omega 6	Taurine
Copper	Iron	Oxalic acid	Uric acid
Creatine	Iso-Flavonoids	Pantothenic acids	Zeaxanthin
			Zinc

## Non-Food

Abachi Wood Dust	Cultivated Oats	Jackfruit	Pine
Acacia	Cultivated Rye	Japanese Cedar	Pityrosporum Orbiculare
ACTH	Cultivated Wheat	Japanese Millet	Pollens and Moulds
Alkalase	Daphnia Fish Food	Johnson Grass	Privet
Alpha-amylase	Date Palm	Latex	Protamine
Alternaria Alternate	Deer Epithelium	Linden Tree	Rabbit Epithelium
American Beech	Disinfectant Agents	London Plane	Rabbit Serum Proteins
Amoxycilloyl	Dog Dander	Lovage	Rabbit Urine Proteins
Ampicilloyl	Dog Epithelium	Lupin	Rape
Anisakis	Dog Serum Albumin	Lycopodium	Rat Epithelium
Artemisia Fish Food	Douglas Fir	Maleic Anhydride	Rat Serum Proteins
Ascaris	Duck Feathers	Marguerite	Rat Urine Proteins
Aspergillus Fumigatus	Echinococcus	Maxatase	Reactive Chemicals
Aspergillus Niger	Elder	Meadow Fescue	Redtop
Aureobasidium Pullulans	Elm	Meadow Foxtail	Rhizopus Nigricans
Bamboo Shoot	English Plantain	Meadow Grass	Rough Marshelder
Berlin Beetle	Epicoccum Purpurascens	Mealworm	Russian Thistle
Bermuda Grass	Ethylene Oxide	Mediterranean Flour Moth	Rye Grass
Birch Pollen	False Oat grass	Melaleuca	Salt Grass
Blomia Tropicalis	False Ragweed	Mesquite	Savinase
Blood Worm	Ferret Epithelium	Methyltetrahydrophthalic Anhydride	Scale
Botrytis Cinerea	Ficus	Micropolyspora Faeni	Sheep Epithelium
Box Elder	Weeping Fig	Mink Epithelium	Sheep Sorrel

Brome Grass	Finch Feathers	Mixed Cagebirds	Silk
Bromelin	Firebush	Mixed Feathers	Silk Waste
Budgie Droppings	Formaldehyde	Mixed Grass Pollens	Spruce
Budgie Feathers	Fox Epithelium	Mixed Moulds Sections	Stachybotrys
Budgie Serum Proteins	Foxtail Millet	Mixed Nuts	Stemphylium Botryosum
Bumblebee	Fusarium Moniliforme	Mixed Ragweed	Storage mite x 5
Canary Feathers	Gerbil Epithelium	Mixed Rodents	Sugar Beet Seed
Canary Grass	Giant Ragweed	Mixed Tree Pollens (x 11)	Sweet Gum
Candida Albicans	Goat Epithelium	Mixed Weed Pollens (x 7)	Sweet Vernal Grass
Casuarina Austrian Pine	Goldenrod	Mosquito	Swine Epithelium
Cat Dander	Goose Feathers	Moth	Swine Serum Albumin
Cat Serum Albumin	Goosefoot	Mountain Juniper	Swine Urine Protein
Cedar	Granary Weevil	Mouse	Tetanus Toxoid
Cefaclor	Green Nimitti fly	Mouse Epithelium	Tetramin Fish Food
Chaetomium Globosum	Grey Alder	Mouse Serum Proteins	Thermoactinomyces Vulgaris
Chicken Droppings	Guinea Pig Epithelium	Mouse Urine Proteins	Timothy Grass
Chicken Feathers	Hamster Epithelium	Mucor Racemosus	Tobacco Leaf
Chicken Serum Proteins	Hazel	Mugwort	Tragacanth
Chinchilla Epithelium	Helminthosporum Halodes	Mulberry	Trichoderma Viride
Chloramine T	Hexahydrophthalic Anhydride	Oak	Trichophyton Rubrum
Chymopapain	Honeybee	Paloverde	Trichosporon Pullulans
Cladosporium	Hornbeam	Papain	Trimelletic Anhydride

Herbarum			
Cockroach	Horse Fly Bot	Paper Wasp	Turkey Feathers
Cocksfoot	Horse Chestnut	Parrot Feathers	Ulocladium Chartarum
Common Pigweed	Horse Dander	Penicillium Frequentans	Ustilago Nuda
Common Ragweed	Horse Bot Fly	Penicillium Notatum	Ustilago Tritici
Common Reed	Horse Serum Proteins	Penicilloyl	Velvet Grass
Common Silver Birch	House Dust	Pepper Tree	Virginia Live Oak
Common Wasp	House Dust Mite	Pepsin	Wall Pellitory
Cotton	Insulin Bovine	Phoma Betae	White Ash
Cotton Seed	Insulin Porcine	Phospholipase	White Pine
Cottonwood	Isocyanate	Phthalic Anhydride	Wild Rye Grass
Cow Dander	Isphagula	Pigeon Droppings	Willow
Curvularea Lunata	Italian Cyprus	Pigeon Feathers	Wormwood

## Other E-Numbers

E260 Acetic acid	E452 Polyphosphates	E559 Aluminium silicate; Kaolin	E939 Helium
E261 Potassium acetate	E459 Beta-cyclodextrin	E570 Fatty acids	E941 Nitrogen
E262 Sodium acetate	E499 Stigmasterol-rich plant sterols	E574 Gluconic acid	E942 Nitrous oxide
E263 Calcium acetate	E500 Sodium carbonates	E575 Glucono delta-lactone	E943a Butane
E270 Lactic acid	E501 Potassium carbonates	E576 Sodium gluconate	E943b Iso-butane
E290 Carbon dioxide	E503 Ammonium carbonates	E577 Potassium gluconate	E944 Propane
E296 Malic acid	E504 Magnesium carbonates	E578 Calcium gluconate	E948 Oxygen
E297 Fumaric acid	E507 Hydrochloric acid	E585 Ferrous lactate	E999 Quillaia extract
E325 Sodium lactate	E508 Potassium chloride	E620 Glutamic acid	E1200 Polydextrose
E326 Potassium lactate	E509 Calcium chloride	E621 Monosodium glutamate	E1201 Polyvinylpyrrolidone
E327 Calcium lactate	E511 Magnesium chloride	E622 Monopotassium glutamate	E1202 Polyvinylpolypyrrolidone
E330 Citric acid	E512 Stannous chloride	E623 Calcium diglutamate	E1203 Polyvinyl alcohol
E331 Sodium citrates	E513 Sulphuric acid	E624 Monoammonium glutamate	E1204 Pullulan
E332 Potassium citrates	E514 Sodium sulphates	E625 Magnesium diglutamate	E1205 Basic methacrylate copolymer
E333 Calcium citrates	E515 Potassium sulphates	E626 Guanylic acid	E1206 Neutral methacrylate copolymer
E334 Tartaric acid (L-(+))	E516 Calcium sulphate	E627 Disodium guanylate	E1207 Anionic methacrylate copolymer

E335 Sodium tartrates	E517 Ammonium sulphate	E628 Dipotassium guanylate	E1208 Polyvinylpyrrolidone-vinyl acetate copolymer
E336 Potassium tartrates	E520 Aluminium sulphate	E629 Calcium guanylate	E1209 Polyvinyl alcohol-polyethylene glycol-graft-co-polymer
E337 Sodium potassium tartrate	E521 Aluminium sodium sulphate	E630 Inosinic acid	E1404 Oxidised starch
E338 Phosphoric acid	E522 Aluminium potassium sulphate	E631 Disodium inosinate	E1410 Monostarch phosphate
E339 Sodium phosphates	E523 Aluminium ammonium sulphate	E632 Dipotassium inosinate	E1412 Distarch phosphate
E340 Potassium phosphates	E524 Sodium hydroxide	E633 Calcium inosinate	E1413 Phosphated distarch phosphate
E341 Calcium phosphates	E525 Potassium hydroxide	E634 Calcium 5'-ribonucleotides	E1414 Acetylated distarch phosphate
E343 Magnesium phosphates	E526 Calcium hydroxide	E635 Disodium 5'-ribonucleotides	E1420 Acetylated starch
E350 Sodium malates	E527 Ammonium hydroxide	E640 Glycine and its sodium salt	E1422 Acetylated distarch adipate
E351 Potassium malate	E528 Magnesium hydroxide	E641 L-leucine	E1440 Hydroxyl propyl starch
E352 Calcium malates	E529 Calcium oxide	E650 Zinc acetate	E1442 Hydroxy propyl distarch phosphate
E353 Metatartaric acid	E530 Magnesium oxide	E900 Dimethylpolysiloxane	E1450 Starch sodium octenyl succinate
E354 Calcium tartrate	E535 Sodium ferrocyanide	E901 Beeswax, white and yellow	E1451 Acetylated oxidised starch
E355 Adipic acid	E536 Potassium ferrocyanide	E902 Candelilla wax	E1452 Starch aluminium Octenyl succinate
E356 Sodium adipate	E538 Calcium ferrocyanide	E903 Carnauba wax	E1505 Triethyl citrate
E357 Potassium adipate	E541 Sodium aluminium phosphate	E904 Shellac	E1517 Glyceryl diacetate (diacetin)
E363 Succinic acid	E551 Silicon dioxide	E905 Microcrystalline wax	E1518 Glyceryl triacetate; triacetin
E380 Triammonium	E 552 Calcium	E907 Hydrogenated	E1519 Benzyl alcohol

citrate	silicate	Poly-1-Decene	
E385 Calcium disodium ethylene diamine tetra-acetate;calcium disodium EDTA	E553a (i) Magnesium silicate (ii) Magnesium trisilicate	E912 Montan acid esters	E1520 Propan-1,2-diol; propylene glycol
E422 Glycerol	E553b Talc	E914 Oxidised Polyethylene wax	E1521 Polyethylene glycol
E423 Octenyl succinic acid modified gum Arabic	E554 Sodium aluminium silicate	E920 L-Cysteine	
E431 Polyoxyethylene (40) stearate	E555 Potassium aluminium silicate	E927b Carbamide	
E450 Diphosphates	E556 Aluminium calcium silicate	E938 Argon	
E451 Triphosphates	E579 Ferrous gluconate	E949 Hydrogen	

## Preservatives

E200 Sorbic acid	E228 Potassium hydrogen sulphite
E202 Potassium sorbate	E234 Nisin
E203 Calcium sorbate	E235 Natamycin
E210 Benzoic acid	E239 Hexamethylene tetramine
E211 Sodium benzoate	E242 Dimethyl dicarbonate
E212 Potassium benzoate	E243 Ethyl lauroyl arginate
E213 Calcium benzoate	E249 Potassium nitrite
E214 Ethyl p-hydroxybenzoate	E250 Sodium nitrite
E215 Sodium ethyl p-hydroxybenzoate	E251 Sodium nitrate
E218 Methyl p-hydroxybenzoate	E252 Potassium nitrate
E219 Sodium methyl p-hydroxybenzoate	E280 Propionic acid
E220 Sulphur dioxide	E281 Sodium propionate
E221 Sodium sulphite	E282 Calcium propionate
E222 Sodium hydrogen sulphite	E283 Potassium propionate
E223 Sodium metabisulphite	E284 Boric acid

E224 Potassium metabisulphite	E285 Sodium tetraborate; borax
E226 Calcium sulfite	E1105 Lysozyme
E227 Calcium hydrogen sulphite	

## Sweeteners

E420 "(i) Sorbitol (ii) Sorbitol syrup"	E960 Steviol glycoside
E421 Mannitol	E961 Neotame
E950 Acesulfame K	E962 Salt of aspartame-acesulfame
E951 Aspartame	E964 Polyglycitol syrup
E952 Cyclamic acid and its Na and Ca salts	E965 "(i) Maltitol
E953 Isomalt	(ii) Maltitol syrup"
E954 Saccharin and its Na, K and Ca salts	E966 Lactitol
E955 Sucralose	E967 Xylitol
E957 Thaumatin	E968 Erythritol
E959 Neohesperidine DC	E969 Advantame

## Vitamins

Vitamin A	Vitamin B3	Vitamin B6	Vitamin E
Vitamin B1	Vitamin B12	Vitamin C	Vitamin K
Vitamin B2	Vitamin B5	Vitamin D	

## Useful Resources

### Essential Amino Acids

#### Definition, Benefits and Food Sources

Amino acids, often referred to as the building blocks of proteins, are compounds that play many critical roles in your body. They're needed for vital processes like the building of proteins and synthesis of hormones and neurotransmitters. Some may also be taken in supplement form for a natural way to boost athletic performance or general condition.

#### What Are Essential Amino Acids?

Amino acids are organic compounds composed of nitrogen, carbon, hydrogen and oxygen, along with a variable side chain group. Your body needs 20 different amino acids to grow and function properly. Though all 20 of these are important for your health, only nine amino acids are classified as essential.

These are histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine. Unlike nonessential amino acids, essential amino acids can't be made by your body and must be obtained through your diet. The best sources of essential amino acids are animal proteins like meat, eggs and poultry. When you eat protein, it's broken down into amino acids, which are then used to help your body with various processes such as building muscle and regulating immune function.

#### May Promote Weight Loss

Some human and animal studies have demonstrated that branched-chain essential amino acids may be effective in stimulating fat loss. For example, an eight-week study in 36 strength-trained men found that supplementing with 14 grams of branched-chain amino acids per day significantly decreased body fat percentage, compared to whey protein or a sports drink. **A study showed that a diet composed of 4% supplemental leucine reduced body weight and fat.**

#### Conditionally Essential Amino Acids

There are several nonessential amino acids that are classified as conditionally essential. These are considered to be essential only under specific circumstances such as illness or stress. For example, although arginine is considered nonessential, your body can't meet

demands when fighting certain diseases like cancer. That's why arginine must be supplemented through diet in order to meet your body's needs in certain situations.

## Health Benefits of Supplementing With Essential Amino Acids

While essential amino acids can be found in a wide array of foods, taking concentrated doses in supplemental form has been linked to several health benefits.

**May Help Improve Mood and Sleep.** Tryptophan is needed for the production of serotonin, a chemical that acts as a neurotransmitter in your body. Serotonin is an essential regulator of mood, sleep and behaviors.

While low serotonin levels have been linked to depressed mood and sleep disturbances, several studies have shown that supplementing with tryptophan can reduce symptoms of depression, boost mood and improve sleep. A 19-day study in 60 older women found that 1 gram of tryptophan per day led to increased energy and improved happiness, compared to a placebo.

## Food Sources and Recommended Intake

Since your body cannot produce essential amino acids, they must be provided through your diet. Fortunately, many foods are rich in essential amino acids, making it easy to meet your daily needs.

The US recommended daily allowances per 2.2 pounds (1 kg) of body weight for the nine essential amino acids are:

Histidine: 14 mg	Isoleucine: 19 mg	Leucine: 42 mg	Lysine: 38 mg
Methionine (+ the non-essential amino acid cysteine): 19 mg	Phenylalanine (+ the non-essential amino acid tyrosine): 33 mg	Threonine: 20 mg	Tryptophan: 5 mg
Valine: 24 mg			

Foods that contain all nine essential amino acids are referred to as complete proteins. Complete protein sources include:

Meat	Seafood	Poultry	Eggs	Dairy Products
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Soy, quinoa and buckwheat are plant-based foods that contain all nine essential amino acids, making them complete protein sources as well. Other plant-based sources of protein like beans and nuts are considered incomplete, as they lack one or more of the essential amino acids.

However, if you're following a plant-based diet, you can still ensure proper intake of all essential amino acids as long as you eat a variety of plant proteins each day.

For example, choosing a variety of incomplete proteins such as beans, nuts, seeds, whole grains and vegetables can ensure that your essential amino acid needs are met, even if you choose to exclude animal products from your diet.

## The Bottom Line

There are nine essential amino acids, which you must get through your diet: histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine. They're vital for functions such as protein synthesis, tissue repair and nutrient absorption. **Some may also prevent muscle loss and improve mood, sleep, athletic performance and weight loss.**

The nine essential amino acids perform a number of important and varied jobs in your body:

**Phenylalanine:** Phenylalanine is a precursor for the neurotransmitters tyrosine, dopamine, epinephrine and norepinephrine. It plays an integral role in the structure and function of proteins and enzymes and the production of other amino acids.

**Valine:** Valine is one of three branched-chain amino acids, meaning it has a chain branching off to one side of its molecular structure. Valine helps stimulate muscle growth and regeneration and is involved in energy production.

**Threonine:** Threonine is a principal part of structural proteins such as collagen and elastin, which are important components of the skin and connective tissue. It also plays a role in fat metabolism and immune function.

**Tryptophan:** Though often associated with causing drowsiness, tryptophan has many other functions. It's needed to maintain proper nitrogen balance and is a precursor to serotonin, a neurotransmitter that regulates your appetite, sleep and mood.

**Methionine:** Methionine plays an important role in metabolism and detoxification. It's also necessary for tissue growth and the absorption of zinc and selenium, minerals that are vital to your health.

**Leucine:** Like valine, leucine is a branched-chain amino acid that is critical for protein synthesis and muscle repair. It also helps regulate blood sugar levels, stimulates wound healing and produces growth hormones.

**Isoleucine:** The last of the three branched-chain amino acids, isoleucine is involved in muscle metabolism and is heavily concentrated in muscle tissue. It's also important for immune function, hemoglobin production and energy regulation.

**Lysine:** Lysine plays major roles in protein synthesis, hormone and enzyme production and the absorption of calcium. It's also important for energy production, immune function and the production of collagen and elastin.

**Histidine:** Histidine is used to produce histamine, a neurotransmitter that is vital to immune response, digestion, sexual function and sleep-wake cycles. It's critical for maintaining the myelin sheath, a protective barrier that surrounds your nerve cells.

**Essential amino acids are at the core of many vital processes** including your nervous, reproductive, immune and digestive systems.

## Sweeteners



Sugar substitutes always seem like an OK idea at first. They're low in calories (or don't have any calories at all) and are often touted as healthier than real sugar. But since artificial sweeteners can cause negative side effects — like digestive troubles, headaches, and even dizziness — they may be worth avoiding.

"Not everyone has immediate effects from sugar substitute. "Based on your individual genetics, metabolism, and even microbiome, your tolerance of sugar substitutes will vary." But for those of us who are sensitive, sweeteners — like xylitol, sorbitol, and maltitol — can wreak all sorts of havoc.

"These compounds [like the sugar alcohol xylitol] are among several classes of compounds found in foods that may not be well-digested and as a result can pull water into your gut, and be the source of food for bacteria to feed on — both resulting in uncomfortable symptoms.

**If this sounds all too familiar, start reading labels and look for a connection between your symptoms, and all those sugar-free foods. And, don't be afraid to swap 'em out for the real deal. "If you don't tolerate these sugar alcohols, absolutely use real sugar-containing products instead,"If you have any of the symptoms below, the change will definitely be worth it.**

## Typical Side-effects from Sweeteners

### **Dizziness**

Aspartame, can really mess with those who are sensitive to it. You might even feel dizzy after consuming it. To test it out, read those labels and keep it out of your diet for a while. You might just feel better.

### **Headache**

It's not uncommon to experience headaches — and even migraines — after eating a sugar substitute. And that's just not worth it.

### **Mood Changes**

If you gulp down a sugar-free drink and then feel positively awful, it may be that aspartame once again. "It can alter your metabolism and your nervous system. And, scarily enough, it's even been known to cause mood changes in some people.

### **Diarrhea**

Sugar alcohols, like xylitol and sorbitol, may seem benign. But for some people, all it takes is one sugar free candy before they're racing off to the bathroom. This is due to the laxative effect of many sugar alcohols.

### **Painful Gas**

Read labels to check for those sugar alcohols — like sorbitol, maltitol, xylitol, and isomalt — and see if there's a connection between snacking on them and feeling extra gassy. "They're found in sugar-free foods like gum. "They can cause gas and diarrhea, especially when eaten in excess (like if you chew sugar-free gum all day long,

### **Worsening IBS Symptoms**

These compounds [like the sugar alcohol xylitol] are among several classes of compounds found in foods that may not be well-digested and as a result can pull water into your gut, and be the source of food for bacteria to feed on — both resulting in uncomfortable symptoms.

### **Bloating**

In the same vein, keep an eye out for painful bloating. "When your body doesn't tolerate sugar substitutes like xylitol, erythritol, isomalt, maltitol, mannitol, and sorbitol, you'll definitely know it. "You might feel gassy, bloated, have intense gas-like pains, feel diarrhea pangs, have diarrhea, and also feel exhaustion as a result."

### **Inflammation**

Because sugar substitutes are chemically altered from their natural form they can react negatively in the body and lead to inflammation. "When the chemical structure of a sugar changes, it also affects how the body respond to it. Often these sugar substitutes are unrecognized by the body, causing inflammation that can possible lead to health complications."

### **Nausea**

Artificial sweeteners can even cause nausea. And this is, once again, all thanks to the fact they're fake. "Sugar substitutes are made of man-made chemicals, which are meant to mimic the sugar molecule," she says. "However, due to its processing, it can sometimes negatively affect people."

## **E-Numbers**

There are a wide variety of E numbers in existence these days, but what are the top 10 E numbers to avoid?

Many people are concerned about the long-term effects of consuming E numbers and especially the effect they could have on children. Although E numbers do go through lengthy testing processes before being unleashed on the unsuspecting members of the public, sometimes certain numbers do have a negative effect on consumers. Often it's because a person is particularly sensitive to an ingredient or element within the E number, or because it exacerbates an existing condition they have.

Choosing just 10 E numbers worth avoiding is a bit tricky, as there are lots that it would be ideal to avoid if you're concerned about your health. But the following 10 are at the top of the avoidance list.

### **E Numbers To Avoid**

1. E102 – tartrazine. This yellow food colouring has already been banned from use in Norway and Austria, yet it's continued being used in food and drinks in the UK. In recent years, since a study found it was linked to hyperactivity in children, the UK government have suggested it should be avoided by children, but adults may well want to avoid it too. E102 is commonly found in products such as mustard, marmalade, jelly, marzipan, ice lollies, fizzy drinks, squash, custard powder and soups.

2. E122 – carmoisine. E122 is a synthetic red dye that's used as a colouring in many foods. Already banned in several countries, including Norway, Japan, America and Sweden, this colouring is found in products such as sweets, yogurts, packet soup, jelly and jam. It has

been positively linked to hyperactivity in children and the UK government recommend that children may be better avoiding it, but it can also cause allergic reactions in adults too.

3. E129 – allura red. E129 is a red or orange like synthetic dye which is used as a food colouring in drinks and sweets. As well as being linked to hyperactive behaviour in children, it may also cause allergic skin reactions in adults, especially anyone sensitive to aspirin. It's worth noting that

E129 has already been banned in many countries, including France, Germany, Belgium, Austria, Norway and Sweden.

4. E104 – quinoline yellow. As the name suggests, E104 is a synthetic yellow colouring and is used in products such as smoked haddock and scotch eggs to provide a yellow tinge. Already banned in countries such as Japan, America, Australia and Norway, the colouring has been linked to health and hyperactive problems in children.

5. E621 – monosodium glutamate. Otherwise known as MSG, E621 is a flavour enhancer that's commonly used to pep up food products and make them taste better. Unfortunately, it is known to cause problems for some people – and certain people seem to more sensitive to its effects than others. Amongst the known side effects, MSG can cause symptoms such as headaches, nausea, dizziness, muscle pain, palpitations and even pain.

6. E951 – aspartame. E951 is an artificial sweetener that's commonly used as a sweetening ingredient. In particular, it's often found in products aimed at dieters or diabetics, such as desserts, low-fat foods, low sugar drinks, snacks and sweets. It's well known to be linked to problems in people who suffer from the condition PKU, and they are well advised to avoid it completely. But aspartame has become a concern to other people too and side effects, such as headaches, have often been reported.

7. E211 – sodium benzoate. E211 is an E number that's used as a preservative and is found in products such as margarine, salad dressing, soy sauce, sweets and soft drinks. Studies have found that it's linked to hyperactivity in children, plus it may cause reactions in people have allergic conditions or asthma.

8. E151 – black PN / brilliant black BN. E151 is a form of black synthetic dye that is used as a food colouring in some products. However, concerns have been raised in other countries, as it's been linked to allergic reactions in some people. It is already banned in Australia, Austria, America, Germany, Norway, Sweden, Switzerland, Belgium and France.

9. E133 – Brilliant blue FCF. E133 is another synthetic colouring dye, which adds a blue colour to some products. Some people have been found to experience allergic reactions after consuming products containing E133 and this E number is already banned in Austria, Sweden, Switzerland, France, Germany and Norway.

10. E213 – calcium benzoate. E213 is a form of preservative that's used to lengthen the shelf life of foods and drinks. It's often found in low sugar products, but it has been linked to side

## THE MOST DANGEROUS E-NUMBERS:

Name	E Number	How it is used	What you should know
Allura Red AC	<b>E129</b>	Widely used as food colouring, in snacks, sauces, preserves, soups, wine, cider etc.	Avoid if you suffer from asthma, rhinitis (including hay fever) and urticaria (an allergic rash also known as hives)
Amaranth	<b>E123</b>	Food colour used in wine, spirits, fish roe	Banned in the US. Avoid if you suffer from asthma, rhinitis, urticaria and other allergies.
Aspartame	<b>E951</b>	Widely used as a sweetener in drinks, snacks, sweets, alcohol, desserts and 'diet' foods	Aspartame may affect people with PKU (phenylketonuria) Recent reports show the possibility of headaches, blindness and seizures with long-term, high-dose aspartame
Benzoic Acid	<b>E210</b>	Widely used preservative in many foods including drinks, low-sugar products, cereals and meat products	Can temporarily inhibit the function of digestive enzymes and may deplete glycine levels. Should be avoided by those with allergic conditions such as hay fever, hives and asthma.
Brilliant Black BN	<b>E151</b>	Widely used in drinks, sauces, snacks, wines, cheese etc	People who suffer from allergic conditions, asthma, rhinitis, urticaria, etc. should avoid this substance
Butylated Hydroxy-anisole (BHA)	<b>E320</b>	Very widely used as a preservative, particularly in fat containing foods, confectionary, meats	The International Agency For Research on Cancer says that BHA is possibly carcinogenic to humans. BHA also interacts with nitrates to form chemicals known to be mutagenic

			(cause changes in the DNA cells)
Calcium Benzoate	<b>E213</b>	Preservatives in many foods including drinks, low-sugar products, cereals, meat products	Can temporarily inhibit the function of digestive enzymes and may deplete glycine and amino levels. Should be avoided by those with allergic conditions such as hay fever, hives and asthma
Calcium Sulphite	<b>E226</b>	Very widely used, mainly as a preservative in a vast array of foods - from burgers to biscuits, from frozen mushrooms to horseradish pulp	In the US sulphites are banned from many foods, including meat, because they make old products look fresh. They can cause bronchial problems, flushing, low blood pressure, tingling, and anaphylactic shock. The International Labour Organisation (ILO) says avoid them if you suffer from bronchial asthma, cardiovascular or respiratory problems and emphysema.
Monosodium Glutamate (MSG)	<b>E621</b>	Widely used as a flavour enhancer	Those sensitive to monosodium glutamate have felt symptoms including pressure on the head, seizures, chest pains, headache, nausea, burning sensations and tightness of face. Many baby food producers have stopped adding this substance
Ponceau4R, Cochineal Red A	<b>E124</b>	Widely used as a colouring	People who suffer from asthma, rhinitis, urticaria, may find their symptoms become worse following consumption of foods containing this colouring.

Potassium Benzoate	<b>E212</b>	Preservatives in many foods including drinks, low-sugar products, cereals, meat products	Can temporarily inhibit the function of digestive enzymes and may deplete glycine and amino levels. Should be avoided by those with allergic conditions such as hay fever, hives and asthma.
Potassium Nitrate	<b>E249</b>	Used as a preservative in cured meats and canned meat products	Three main health concerns; It can lower the oxygen-carrying capacity of the blood; it may combine with other substances to form nitrosamines, which are carcinogenic, and it may have an atrophying affect on the adrenal gland.
Propyl P-hydroxybenzoate, Propylparaben, Paraben	<b>E216</b>	Preservative in Pates, cereals, snacks, meat products and confectionary	Parabens have been identified as the cause of chronic dermatitis in numerous instances.
Saccharin and its Na, K and Ca salts	<b>E954</b>	Very widely used sweetener, found in diet, and no added sugar products	The International Agency for Research on Cancer has concluded that Saccharin is possibly carcinogenic to humans
Sodium Metabisulphite	<b>E223</b>	Widely used as a preservative and antioxidant	May provoke life-threatening asthma - a woman developed severe asthma after eating a salad with a vinegar based dressing containing E223
Sodium Sulphite	<b>E221</b>	Preservative used in wine making and other food processes	Sulphites have been associated with triggering asthma attacks; most asthmatics are sensitive to sulfites on food.
Stannous Chloride (tin)	<b>E512</b>	Antioxidant and colour retention agent in	Acute poisoning has been reported from

		canned and bottled foods, fruit juices	ingestion of fruit juices containing concentrations of tin greater than 250 mg per litre. Causing nausea, vomiting, diarrhoea and headaches.
Sulphur Dioxide	<b>E220</b>	Very widely used preservative	Sulphur Dioxide reacts with a wide range of substances found in food, including various essential vitamins, minerals, enzymes and essential fatty acids. The most common adverse reaction to sulfites is bronchial problems, particularly those prone to asthma. Other adverse reactions may include hypotension (low blood pressure) flushing, tingling sensations and anaphylactic shock. The ILO says you should avoid E220 if you suffer from conjunctivitis, bronchitis, emphysema, bronchial asthma or cardiovascular disease.
Sunset Yellow FCF, Orange -Yellow S	<b>E110</b>	Widely used food colour	Some animal studies have indicated growth retardation and severe weight loss. People with asthma, rhinitis or urticaria should avoid this product.
Tartrazine	<b>E102</b>	Widely used yellow food colour	May cause allergic reactions in perhaps 15 percent of the population. It may be a cause of asthmatic attacks and has been implicated in bouts of hyperactivity disorder

			in children. Those who suffer from asthma, rhinitis, urticaria may find symptoms worsen after consumption
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## Metal Toxicity

### With regards to your metals test results

These are a guide to what heavy metals you have shown a sensitivity to and they are shown as a value in a GREEN (LOW), ORANGE (MEDIUM) or RED (HIGH) level. Ideally the numbers should be towards the green 'LOW' zone. Those in the yellow 'MEDIUM' zones are ones to look out for, but the values in the red 'HIGH' zone are the heavy metals we have found to be causing the most problems with your health at this moment in time.

You needn't panic with these results or think you need to see your doctor if you see a lot of 'HIGH' results. There are a few steps you can take first to help with this.

Firstly, look at areas where you could be exposing yourself to these metals. This could be in a work environment, a place where you frequently attend or something that is close to your home.

Secondly, you will also need to look at your diet and see if there are a group of foods that you consume regularly that contain high levels of these particular metals. You will need to research these foods and try to reduce them to help lower these sensitivity levels back down. Also try using the natural way to reduce metals information that we have given you at the end of your metal's results.

If you find that when in close proximity of a particular metal that you begin to experience any symptoms (such as itchiness, swelling, nausea, headaches, etc.), then you will know that it is this particular metal that is causing you to react like this. The more severe the symptoms, the more action you will need to take to reduce your exposure to this metal.

In general, you will need to look at the following:

**Food:** Where is your food grown; any crops grown near highways, factories, industrial estates, etc. will be prone to having exhaust fumes and chemical waste fumes having been sprayed on them. Also any farmers that use pesticides and sprays will automatically contaminate crops too. One notable source of metals is shellfish.

**Drinking water:** Any water that is fed through piping will be contaminated. This is the most prolific way to have metals toxicity as the water just sits in the pipes ready to be used when you switch the tap on. It is very important that you filter water to reduce these contaminants from minerals such as aluminium (Al), copper (Cu), chlorine (Cl), arsenic (As), cadmium (Cd) and lead (Pb).

**Airborne sources:** You can induce metals toxicity from the air, such as inhaling fumes from exhausts of cars, buses, motorcycles, trucks, trains, aircraft, etc. Fumes from industrial factories and incinerators will also play a part in toxicity via the airwaves.

**Medication:** Some minerals are used to lace tablets and pills.

**Cosmetics and toiletries:** Many minerals are used in these products that we use on a daily basis, such as body lotions, creams, hair dye, lipstick, shower gels, soaps, with the biggest one being aerosols such as antiperspirants and deodorants and hairsprays. Dentals amalgams of filling (consisting mainly of Mercury (Hg) and Copper (Cu) amongst other metals) can also be a cause along with dental bridges, prostheses and even pins holding previously broken bones together. Household chemicals:

**Everyday cleaning products:** such as polish, all purpose sprays, etc., garden chemicals, sprays, insecticides, pesticides, etc. will all have metals in them to aid its purpose.

**Occupational hazard:** Depending on your job, you can have different levels of exposure to metals, in occupations such as those in any building trades, electricians, iron workers, mechanics, plumbers, printers and even office workers.

**Removing Metals From The Body:** The Natural Way Encouraging the body's natural detoxification pathways is something everyone would benefit from. Heavy metals can enter our body through the foods we eat, the water we drink, the cleaning products we use in our homes, the personal care products we use on our skin, and through just breathing the air itself.

**Heavy metals such as lead, cadmium, nickel, mercury, aluminium and arsenic** accumulate in our body and interact with other minerals. This interaction can promote the action of some minerals, and inhibit others, leading to imbalances. For example lead inhibits calcium, iron and potassium, nutrients which are vital for our bone health, muscle function and energy levels. One molecule of mercury can affect the action of up to one thousand zinc molecules; a mineral needed for hundreds of enzyme reactions within our body.

Five foods that naturally act as heavy metal detox agents are:

**1. Apple and pear pectin** - a type of fibre found in the skins of apples and pears, pectin binds to heavy metals in the colon and helps to excrete them from the body. Make sure you are buying organic apples and pears and eating them raw. Specifically it can help detox aluminium, arsenic, mercury, lead and nickel.

**2. Garlic** - this amazing sulphurous herb not only stimulates and protects the immune system, it assists in the detoxification and excretion of aluminium, cadmium, arsenic, mercury, lead and nickel. It must be eaten raw and fresh! Cut or bottled garlic has lost most if not all of its detoxifying effects. Stir it last through served meals or cut it into small pieces and swallow 2-3 cloves like pills.

**3. Sea Vegetables** - seaweeds like kelp, dulse and wakame have a balanced mineral content and help to remove unwanted metal deposits from the body. They supply the body with necessary minerals and iodine to aid in the removal of toxic metals such as nickel and mercury.

**4. Coriander** - (or cilantro) this lovely plant absorbs toxic metals in the body such as lead and mercury. Add it fresh to meals or salads, or juice a whole bunch in a beautiful green alkalizing juice with silver beet, cucumber, apple and lemon.

**5. Insoluble Fibre and Water** - psyllium, chia seeds, slippery elm, and rice bran all help the body eliminate wastes by acting as an internal broom. Toxins are swept up and moved through the colon at frequent, regular intervals (at least one or two bowel motions a day). Two litres of water per day is necessary to facilitate this action. We are exposed to heavy metals on a daily basis, so supporting our body by consuming these natural foods, boosts our ability to safely move them out

## About Resistance Foods



On a daily basis our body's come under attack by microorganisms that can weaken our ability to defend ourselves. We have natural processes which are designed to enable us to resist these attacks and there are many foods which can support our natural ability to defend against these invaders. By eating a diet rich in certain foods, you can keep your natural resistance in good shape and allow your body to naturally defend itself. Typical food groups which can support this natural process are, herbs, fruits, vegetables, prebiotics and probiotics. An overall good healthy diet, with moderate exercise will maintain good resistance and support the normal function of your defensive system.

### Keeping your resistance strong

Your body has an entire system dedicated to naturally resisting outside invaders and providing good protection to your cells and organs.

This system requires a good overall and balanced nutritional intake to support it and help maintain all aspects of defense. There are other certain foods which can actively boost the system and help the body produce more elements which can resist invaders.

### Typical resistance foods

Garlic	Ginger	Pineapple	Elderberry
Onions	Coconut Oil	Pumpkin Seeds	Broccoli

## About Cleansing Foods



Our environment has changed dramatically since the industrial revolution and one of the biggest changes has come about in the area of man-made elements. We can accumulate many influences which are not well tolerated by the body and which we should get rid of through the body's natural elimination processes. However, these processes were not designed to cope with the amount and variety of man-made elements which they now have to. It requires extra support from your diet.

To help support and maintain a clean and optimized system, we require foods which support this process. There are many foods which can support your body's daily cleansing needs and which will help to maintain the systems at their optimum function. Typical cleaning foods are green foods, wholefoods, nuts, seeds and herbs. But there are many and it's important to get good selection of different foods which have this ability.



## Tips for Avoiding Your Food Sensitivity

- All FDA-regulated manufactured food products that contain a “major food allergen” (milk, wheat, egg, peanuts, tree nuts, fish, crustacean shellfish, and soy) as an ingredient are required by U.S. law to list that allergen on the product label. For tree nuts, fish and crustacean shellfish, the specific type of nut or fish must be listed.
- Read all product labels carefully before purchasing and consuming any item.
- Be aware of unexpected sources of allergens, such as the ingredients listed below.
- **\*Note: This list does not imply that the allergen is always present in these foods; it is intended to serve as a reminder to always read the label and ask questions about ingredients.**

## Reaction To Foods and Their Timing

Below is a table adapted from Basics of Food Allergies, by Dr. James Breneman, which correlates allergic reactions with common offenders. Included is the frequency of the time interval between when the food is eaten and when the symptoms begin to appear. One can see that some reactions such as heartburn may occur very shortly after eating a particular food offender and other reactions may not present for days. These reactions can be very difficult to assess and often go incorrectly diagnosed. Unless there is some suspicion and some type of thorough evaluation, such reactions can be ascribed to many things other than the real cause. NOTE: The number of \*’s displayed across from each of the pathologies represents the frequency with which the symptoms may appear after eating that food. Again, this can be very variable in individuals and this table should be used as a guide.

Symptom or Pathological Condition	Minutes		Hours								Common Causes <sup>1</sup>		
	30	60	2	3	6	12	24	36	48	72		96	
Heartburn	***	****	***	***	*								Coffee, wine, tomato sauce, citrus, beer, banana, apple
Rhinorrhea	*	****	***	**	**	*							Milk, cheese wheat, corn, MSG, wine, beer, chocolate
Abdominal Cramps	**	***	***	***	****	***	*						Milk, cheese, gluten, nuts, apples, coffee, pork
Headaches	*	**	***	****	***	**							Coffee, cola, chocolate, nuts, MSG, foods containing tyramin, sucrose, simple sugars
Fatigue	***	**	*	**	***	****	****						Simple sugars, milk, cheese, chocolate, wheat
Gallbladder	*	***	****	***	***								Egg, milk, onion, chicken, beef
Colic													Pork
Urticaria	*	***	*										Fish, shrimp, egg, peanut, chocolate
Delayed Urticaria					***	****	****						Egg, soy, corn
Migraine		**	*		***	****	***						Chocolate, coffee, soy, corn, egg, wheat
Enuresis				*	***	**	*						Simple sugars, soda, milk, corn, egg, wheat
Edema					*	**	****	**	*				Milk, dairy
Seizures													
Diarrhea	*	**	**	**	**	***	****	***					Chocolate, eggs, dairy, wheat
Mental Confusion	*	**			*	**	****	**	*				
Skeletal Cramps						*	**	***	***	****	*		
Aphthous Ulcers						*	**	***	***	****	***		Gluten, citrus, sugars, apples, chocolate
Joint Pains						*	**	***	****	****	*		Wheat, coffee, meat, and many other foods
Gout					*	*	**	***	***	***			Meat

1 The foods listed across from the symptom or pathological condition are some of the more common causes of them. Certainly they are not the only foods or substances that can trigger such reactions as many environmental pollutants or toxic exposures can also trigger the same symptoms.

## Frequency Interference Foods



Modern day electrical supply and technologies are largely powered by or utilize frequencies at the very low spectrum range. These are considered non-ionizing forms of EM radiation in the 50Hz to 1GHz range. There are many forms of natural frequency like visible light or ultraviolet, even the body and its cells have a very weak frequency field. Modern forms of frequency appear not to be very compatible with the body's own fields and this is starting to create knock on effects for wellness. These factors can interfere with everyday communication within your body and you should be eating a wide variety of foods which can support and maintain normal function.

### **Reduce exposure to frequency interference.**

As of yet, we do not fully understand the effects that our modern electrical environments are having on our wellness processes. However, it is clear that there is some effect and that it should be wise to start introducing foods which can help support the body and maintain systems which may come under pressure from the electrical appliances which we use on a daily basis both at home and work. Structured water may support cellular communication and help conserve energy in the system.

### Interference foods

Spirulina	Vitamin D3	Curcumin	EFA's
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Calcium	Melatonin	B Vitamins	Sulfur
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# Acids



Fatty acids, as they sound, are fats that are necessary within the human body. Though you have probably often heard the word “fats” and associated it with bad health, there are some essential acids that are necessary for your survival.

Without them, you could cause serious damage to different systems within the body.

However, essential fatty acids are also not usually produced naturally within the body. This means that you have to obtain essential fatty acids by adding them to your diet.

## How fatty acids support wellness.

Many processes and structures in the body require a EFA’s (Essential Fatty Acids) in order to function at their optimum level. EFA’s are a key part in supporting the cell membranes and brain and nervous system of the body. Other regulatory processes require EFA’s and they have protective qualities. You need a daily and wide intake of EFA’s to help support and maintain the myriad of underlying mechanisms, which will in turn support optimized wellness.

## Fatty acid rich foods

<b>Non-Vegetarian</b>			
Sardines	Salmon	Shrimp	Mackerel
Herring	Trout		
<b>Vegetarian</b>			
Flaxseed	Walnuts	Soy Beans	Tofu
Hempseed			

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**Phenylalanine:** Phenylalanine is a precursor for the neurotransmitters tyrosine, dopamine, epinephrine and norepinephrine. It plays an integral role in the structure and function of proteins and enzymes and the production of other amino acids.

**Valine:** Valine is one of three branched-chain amino acids, meaning it has a chain branching off to one side of its molecular structure. Valine helps stimulate muscle growth and regeneration and is involved in energy production.

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**Lysine:** Lysine plays major roles in protein synthesis, hormone and enzyme production and the absorption of calcium. It's also important for energy production, immune function and the production of collagen and elastin.

**Histidine:** Histidine is used to produce histamine, a neurotransmitter that is vital to immune response, digestion, sexual function and sleep-wake cycles. It's critical for maintaining the myelin sheath, a protective barrier that surrounds your nerve cells.

## How to Read a Label for an Egg-Free Diet

Avoid foods that contain egg or any of these ingredients:

Albumin (/albumen)	Mayonnaise
Egg (dried, powdered, solids white, yolk)	Meringue
Eggnog	Ovalbumin
Lysozyme	Surimi
<b>Egg is sometimes found in the following foods:</b>	
Baked goods	Marzipan
Egg substitutes	Marshmallows
Lecithin	Nougat
Macaroni	Pasta

**Keep the following in mind:**

- Individuals with egg allergy should also avoid eggs from duck, turkey, goose, quail, etc., as these are known to be cross-reactive with chicken egg.
- While the whites of an egg contain the allergenic protein, patients with an egg allergy must avoid all eggs completely

## Antioxidants



Antioxidants protect the tissue and DNA against free radicals that are released in different body processes. Free radicals (also called oxidants) are chemically unstable compounds that damage the structure of the body. Free radicals are the basis for the development of cardiovascular diseases and cancer. Antioxidants are able to 'catch' the free radicals and make them harmless. Normally free radicals and antioxidants keep each other in balance.

But when there is a shortage of antioxidants (for example due to diet, stress or smoking), additional supply of antioxidants is necessary.

When they cause damage, they call that oxidative stress. Oxidative stress occurs when too many free radicals are present or when these substances are found in undesirable places in the body.

There are indications that oxidative stress can lead to cardiovascular disease, cancer and damage to our nervous system after a long period of time. There are also indications that free radicals play a role in certain aging processes. Antioxidants that enter our body through healthy eating make these free radicals harmless, and contribute to the fact that this does not happen. But in some cases free radicals have a favorable effect. For example, immune cells use the free radicals to kill unwanted bacteria or to clean up damaged proteins in the muscles after you have been active.

## How do free radicals form?

Free radicals are created by various chemical reactions. We talk about unwanted radicals when there are too many that are present at the wrong time or in the wrong place. Unwanted radicals can cause damage and must be rendered harmless.

Free radicals are produced in small numbers by our body. This is a very natural process. In the first instance, free radicals bind to bacteria and viruses. They fight it and in this way maintain our health. However, due to certain living conditions, the human body is exposed to hundreds of substances and external factors that promote the growth of free radicals.

Living conditions such as the air pollution we have to deal with today, but also pesticides and perfumed odors, a wrong diet and lifestyle cause an extra growth of free radicals in our body. Because of this explosive growth these free radicals will behave differently and they will bind to healthy cells, tissues and organs.

## Free radicals in the body can arise through:

- Toxic metabolic substances that occur in diseases, stress and fatigue
- Smoking and alcohol
- Sunlight
- Air pollution
- Insecticides on and in fruit and vegetables
- Medicines
- Radiation such as electrosmog, nuclear reactions and radioactivity
- X-rays
- Sodium nitrite, preservative for meat
- Heavy metals

## Antioxidants as an aid in in the food production

They can then be recognized by the E number on the label. They are added, among other things, to prevent fats becoming rancid and to counter the browning of products with fruits in them. The most important permitted antioxidants in foods are: • Vitamin C. • Salts of ascorbic acid (E 300 to 304). • Various vitamin E compounds (E 306 through 309). • Synthetic antioxidants such as the gallates, BHA and BHT (E 310 to 319)

## Drugs That Gobble Up Vitamins

When taken regularly, some frequently prescribed medications can diminish or deplete your body's stores of important vitamins, minerals, and other essential nutrients. If you take any medications, talk with a nutrition-oriented medical professional about adding Whole Food Supplements, from Standard Process, to your current regimen.

**Contrary to what mainstream medicine would have you believe, there are natural alternatives to prescription drugs. These alternatives are found in nature and are without the toxic side effects found in so many pharmaceutical medications. In the table below you will find the names of common drugs and nutritional deficiencies associated with it.**

You will also find a list of the whole food supplements to address the deficiency, and suggested whole food alternatives to the drug. These supplements are not meant to replace your prescription medication. Please consult with your healthcare professional before starting any protocol.

DRUG	NUTRIENT DEFICIENCY	RESTORATIVE WHOLEFOOD SUPPLEMENTS	STANDARD PROCESS NATURAL ALTERNATIVES
<b>Antacids</b>			
Pepcid, Tagamet, Zantac Prevacid, Prilosec, Tums, Nexium, Alka-Seltzer	Vit B12, Thiamin, Folic Acid, Vit D, Calcium, Iron, Zinc, Magnesium, Potassium, Phosphorus, Protein	Zypan, Cataplex B, Chezyn, Calcium Lactate, Cataplex D, Trace Minerals B12	Zypan, Betaine HCl, Multizyme, Digest, Gastrex, Chlorophyll Cx, Cataplex B, AF Betafood
<b>Antibiotics</b>			

Amoxicillin, Erythromycin, Penicillin, Tetracycline	“Friendly”/beneficial intestinal bacteria, Vit K, all B-Vitamins, all minerals	ProSynbiotic, Lact-Enz, Lactic Acid Yeast, Cataplex B/G, Organically Bound Minerals, Chezyn, Calcium Lactate	Congaplex, Andrographis Cx, Echinacea Premium, Immuplex, Goldenseal 500mg, Zymex, Zymex II
<b>Antidepressants</b>			
Adapin, Aventyl, Elavil, Tofranil,	Vitamin B2, Coenzyme Q10,	Cellular Vitality, Cardio-plus, Cataplex G, Symplex F/M, Trace Minerals B12	Nevaton, Cataplex B (thiamin), St. John’s Wort-IMT (or MH), Orchex, Cataplex D, Drenamin, Whole Dess. Adrenals Blood Sugar: Diaplex, A-F Betafood, Gymnema
SSRI: Prozac, Zoloft, Lexapro	Melatonin		
<b>Antidiabetic Drugs</b>			
Dymelor, Micronase, Avandia, Actos	Vitamin B12, Folic Acid, CoQ10	Diaplex, Gymnema, Zypan, Cataplex B, Cellular Vitality	Diaplex, Cataplex GTF, Magnesium Lactate
<b>Anti-inflammatories</b>			
NSAIDS: Advil, Aleve, Dolobid, Motrin, Naprosyn, Voltaren, and others	Vitamin C, Folic Acid, Iron, Potassium	Cataplex C, Folic Acid B12, Ferrofood	Saligesic, Tuna-Omega-3 Oil
Steroids: Cortisone, Prednisone, Medrol, Aristocort, Decadron	Vit C, Vit D, Folic Acid, Zinc, Calcium, Magnesium, Potassium, Selenium	Cyruta Plus, Min-tran, Manganese B12, Calcifood, Cataplex D, Chezyn	Boswellia Cx, Tuna Omega-3 Oil, Sesame Seed Oil, Drenamin, Cataplex ACP

<b>Analgesic</b>			
Acetaminophen	Folic Acid, Vit C, Iron, Potassium	LivCo, Livaplex, Silymarin, HerbaVital	Saligesic, Chlorophyll Cx
<b>Antihypertensives</b>			
Hydralazine Beta Blockers Clonidine	Coenzyme Q10, Magnesium, Vit B6 Coenzyme Q10	Cellular Vitality, Cardioplus, Magnesium Lactate, B6 Niacinamide	Cardio-Plus, A-F Betafood, Garlic 5000 mg, Coleus Forte, Cataplex G, Hawthorne, Elevated Diastolic: Cataplex E2, Renafood Elevated Systolic: Cholaplex  Hepatic: Livaplex, A-F Betafood, Antronex Emotional: Min-Chex
<b>Cholesterol Lowering Drugs</b>			
Baycol, Lescol, Lipitor, Mevacor, Zocor	Co Q10, Selenium, Zinc, Copper,	Cellular Vitality, Chezyn, Calsol, Folic Acid B12, Cataplex E, Magnesium Lactate	Cyruta, Cholaplex, Livton, Livaplex, Garlic 5000mg, Choline, 21-Day Purification Program, Tuna Omega-3 Oil, Magnesium Lactate, Niacinamide B6
Colestid, Questran	Vit A, Vit B12, Vit D, Vit E, Vit K, Folic Acid,		

	Iron, Calcium, Magnesium, Phosphorus, Zinc Vit B6, Vit B12, Co Q10, Zinc, Folic Acid, Vit C, Magnesium, Vitamin B2, Vitamin B6, Vitamin B12, Folic Acid, Vitamin C, Magnesium, Zinc, Vitamin B2, Coenzyme Q10		
Lopid, Tricor	Coenzyme Q10, Vit E		
<b>Diuretics</b>			
Diuretics: Loop, Thiazide, Potassium Sparing, Misc	Vit B1, Vit B6, Magnesium, Potassium, Zinc, Vit C, Folic Acid, Calcium	Min-Tran, Calcium Lactate, Cataplex B, Zinc	A-C Carbamide, Arginex, Renafood, Celery Seed 1:2, Drenatrophin PMG
<b>Female Hormones</b>			
Estrogen/HRT: Evista, Prempro, Premarin, Estratab	Vit B6, Vit B12, Co Q10, Zinc Folic Acid, Vit C, Magnesium	Cellular Vitality, Chezyn, Folic Acid B12, Mag Lactate Cataplex C	FemCo, Symplex F, Chaste Tree, Wild Yam Complex, Black Currant Seed Oil, Drenamin, Hypothalmex, Neuroplex, Trace Minerals B-12
Oral Contraceptives: Estrastep, Norinyl,	Vitamin B2, Vitamin B6,	B6 Niacinamide, Cataplex B/G,	

Ortho-Novem, Triphasil	Vitamin B12, Folic Acid, Vitamin C, Magnesium, Zinc	Folic Acid B12, Cataplex C, Magnesium Lactate, Chezyn	
<b>Laxatives</b>			
	Potassium	Organically Bound Minerals	Fen-Cho, Colax, Lactic Acid Yeast, Disodium Phosphate, Magnesium Lactate
<b>Tranquilizers</b>			
Major: Haldol, Vesprin	Vitamin B2, Coenzyme Q10	Cellular Vitality, Cardioplus	Min-Tran, Valerian Cx, Min-Chex, Nevaton, Orchex, California Poppy, Organically Bound Minerals, Cataplex G,
Minor: Lunesta, Ambien			
Psychotherapeutics: Ormazine, Thorazine			
<b>Anticonvulsants</b>			
Barbiturates: Butalan, Brevital, Pentothal	Folic Acid, Vit D, Vit K, Calcium	Folic Acid B12, Cataplex B, Cataplex D, Calcium Lactate, Cruciferous Complete	
Phenytoin: Dilantin	Biotin, Folic Acid, Vit D, Calcium, Vit B1, Vit B12		
Carbamazepine: Tegretol	Biotin, Folic Acid, Vit D		
<b>Bronchodilators</b>			
Theophylline	Vit B6	B6 Niacinamide	Broncaflect, PulmaCo, Emphaplex, Pneumotrophin PMG

Synthetic Thyroid			
	Calcium	Calcium Lactate, Calsol	Thytrophin PMG, Thyroid Cx, Symplex F/M, Cataplex F Tablets, Prolamine Iodine, Iodomere

**The information provided is for informational purposes only and is not intended as a substitute for advice from your physician or other health care professional or any information contained on or in any product label or packaging.**

**You should not use the information in this for diagnosis or treatment of any health problem or for prescription of any medication or other treatment.**

**You should consult with your healthcare professional before starting any diet, exercise, or supplement program, before taking any medication, or if you have or suspect you might have a health problem.**

## How to read a label for a Milk-Free Diet

**Avoid foods that contain milk or any of these ingredients:**

Butter, butter fat, butter oil, butter acid, butter ester(s)	Ghee	Milk protein hydrolysate
Buttermilk	Half-and-half	Pudding
Casein	Lactalbumin, Lactalbumin phosphate	Recaldent
Casein hydrolysate	Lactoferrin	Rennet casein
Cheese	Lactose	Sour cream, sour cream solids Sour milk solids
Cottage cheese	Lactulose	Tagatose
Cream	Milk (in all forms: condensed, Derivative, dry, evaporated, goats milk, milk	Whey (all forms)

	from other animals, lowfat, malted, milk fat, nonfat, powder, protein, skimmed, solids, whole)	
Curds		Whey protein hydrolysate
Diacetyl		Yogurt
<b>Milk is sometimes found in the following:</b>		
Artificial butter flavor	Baked goods	Caramel candies
Chocolate	Lactic acid culture & other bacterial cultures	Luncheon meat
Hot dogs	Margarine	Margarine

**How to Read a Label for a Soy-Free Diet**  
 Avoid foods that contain soy or any of these ingredients:

Edamame	Soybean (curd, granules)
Miso	Soy protein (concentrate, Hydrolyzed, isolate)
Natto	Soy sauce
Shoyu Soy (soy albumin, soy cheese, soy fiber, soy flour, soy grits, soy ice cream, soy milk, soy nuts, soy sprouts, soy yogurt)	Tamari
Soya	Tempeh
	Textured vegetable protein tofu
<b>Soy is sometimes in the following:</b>	
Asian cuisine	Vegetable gum

Vegetable broth	Vegetable starch
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**Keep the following in mind:**

- The FDA exempts highly refined soybean oil from being labeled as an allergen.
- Studies show most allergic individuals can safely eat soy oil that has been highly refined

(not cold pressed, expeller pressed, or extruded soybean oil

- Most individuals allergic to soy can safely eat soy lecithin

Follow your doctor’s advice regarding these ingredients

## How to Read a Label for a Wheat-Free Diet

Avoid foods that contain wheat or any of these ingredients:

Breadcrumbs	Hydrolyzed wheat protein	Sprouted wheat
Bulgur	Kamut	Triticale
Cereal extract	Matzoh/a, matzo meal	Vital wheat gluten
Club wheat	Pasta	Wheat (bran, durum, germ, gluten, grass, malt, sprouts, starch)
Couscous	Seitan	Wheat bran hydrolysate
Cracker meal	Semolina	Wheat germ oil
Durum	Spelt	Wheat grass
Einkorn		Wheat protein isolate
Emmer		Whole wheat berries
Farina		
Flour (all purpose, bread, cake, durum, enriched, protein, instant, pastry, self rising, soft wheat, steel ground, stone ground, whole Wheat)		

Wheat is sometimes also found in the following: Glucose syrup Starch (gelatinized starch, modified surimi Soy sauce starch, modified food starch, vegetable starch)

## The four biggest energy thieves

### More energy through food

A meal directly influences how you feel. For example, if you eat sugar-rich, you will notice that immediately in your body. We are not aware of all cases unless we listen more to the (sometimes subtle) signals of our body, that can generate a lot of energy. Get more energy through nutrition, and read here how. Nutrition can immediately give you stable energy for several hours. If you can use more energy, the very first step is to become aware of what COST you energy, and to remove this from your diet.

After a heavy evening meal with cheese, meat and pasta for example, you usually have no energy left to do something active. But it also works the other way, from just one healthy meal full of fresh ingredients that give you energy you feel immediately fitter. After a meal with healthy ingredients you get a constant energy, not first the energy peak and immediately afterwards a valley of a sugar-rich food. You can compare it to a car, if you do not put the right fuel in it, it will stop driving sooner or later.

So what you eat determines to a large extent how much energy you have to get through the day. An unhealthy diet does not only give your body less energy, it also costs your body more energy, and a direct result is that you feel lame and tired. Often we do not feel comfortable because we feed on autopilot with substances that our body does not tolerate, for example if our body has to work too hard to digest them.

You hardly notice it, you just accept that you feel a bit bloated after a hearty meal. Or that you are always tired after eating (after all, you have had a long working day). You no longer know better, but it can be really different. You can have a lot more energy (even after a long working day) when you are going to avoid foods that are stressful to your body, and add foods that give you energy.

## 1. SWINGS IN THE BLOOD SUGAR MIRROR

Blood sugar levels rise faster or less quickly depending on the type of sugar in your diet or drink. With one type your blood sugar level rises faster than with the other. The structure of the food that contains the sugar also determines how quickly the blood sugar level goes up. Liquid sugars, such as in sports or soft drinks, lead to a faster increase than high-fiber foods with slow sugars, for example the complex carbohydrates in quinoa.

Sugars supply our body cells with energy. If you always eat sugar rich, there is a rise in your blood sugar levels after every snack or meal. Your body makes insulin and ensures that the sugars are absorbed. The more sugars there are in the snack or meal, the harder the 'dip' comes on when this fast energy is absorbed by your cells. Your body then gives a signal to the brain that your blood sugar level becomes 'too low'. That is the famous 'sugar dip'. As a result, the amount of energy that you have at your disposal during the day varies enormously.

If you are going to avoid sugary foods, you will have more stable energy throughout the day. With a balanced blood sugar level, you are also clear-headed and make physical effort easier. Unfortunately, food manufacturers not only put sugar in sweets, cookies, cakes and desserts, but they also put it into products where you would not expect it as quickly, such as soups, sauces, meat products and salad dressings.

**Try to drastically reduce your sugar intake and 'fast' carbohydrates and instead eat more 'slower' sugars such as quinoa, amaranth, buckwheat groats, brown rice, sweet potatoes and nuts.**

## 2. DIGESTION OF A GREAT MEAL

The main function of the digestive system is to break down food so that nutrients can be absorbed by the body to give the body energy, help it grow and recover. Deep-fried products and many highly processed foods contain, for example, trans fats.

These are hydrogenated unsaturated fatty acids, these are not only harmful to heart and blood vessels, but they cost your body much longer to digest. Meals with lots of grains, cheese and meat also cost your body more time and effort to digest. This requires unnecessary energy and gives you a feeling of exhaustion after a meal. Never too much.

As a guideline you can maintain that you can get the best for 80% full, because the remaining 20% space you need to be able to digest your food.

## 3. FOODSTUFFS FOR WHICH YOU ARE INTOLERANT FOR

You sometimes hardly notice that your body actually does not tolerate certain foods or substances, but sensitivity or intolerances are much more common than we are aware of.

The extent of this varies per person, depending on your genetic material. For example, most people do not respond very well to dairy products and lactose,.

There are also more and more scientific studies that show that milk is not at all healthy. The American Dr Campbell, who wrote a book about this after several scientific studies, claims that milk is unhealthy. He has in his book the consumption of milk, in connection with the various studies, linked with some types of cancer and other diseases.

#### 4. DIGGER OF BREAD

Another intolerance is that for gluten. This protein in wheat is in bread, pasta and other pasta. In addition, gluten is processed in almost all sustainable foods and factory foods. The sensitivity to gluten is a growing problem because the food industry is increasingly using gluten. Due to the thickening and chewable structure, gluten are often isolated from grains and processed into a commonly used binder in the food industry. Due to this expansion of gluten in processed food, we get a lot more gluten everyday unnoticed than would be healthy for us.

According to the researcher Kenneth Fine, who specializes in research into the effect of gluten, 81% of the population has a greater or lesser degree of gluten intolerance. They form a permanent light load for your digestive system. Most people hardly notice anything of that light load until they start eating differently. That almost imperceptible load is especially harmful in the long term.

You can also see it with E numbers in your diet, for example. Once a small amount of such an addition in your food is not necessarily harmful. It is about those several times a day and that for years in succession. If you are going to ban gluten from your diet, you will have more energy after just a week or two. Dr. Nicholas Perricone, a well-known American dermatologist, states in his book Forever Young that after decades of practical experience he has observed that many of his patients have low-grade chronic inflammation and fatigue. According to his research, this is due to the eating of pro-inflammatory nutrition, in particular gluten-based grains and wheat.

#### NEVER TOO LATE FOR RESULT

Small changes can make a big difference. Do not try to change your whole diet at once, this is a recipe for failure. The first step is a small but important step towards the bigger goal, a real improvement for your health and more energy. It is never too late to start with healthy food. Approximately 80 percent of your body's cells renew every year. Your body changes constantly, it rejuvenates and makes new cells every day. That means that your body is built up after a year from everything that you have received in that year with nutrients. So you are literally what you eat, and you have all the influence on that.

## MORE ENERGY BY POWER

When you next add nutrients and substances to your diet you will soon experience that you get more energy and more energy, even after a long working day.

### 1. WATER

Drink enough water. Our body needs to be sufficiently hydrated to stay healthy and function properly. If you drink too little you can get very tired of it and even get a headache. As a guideline, we recommend that you daily drink at least your body weight x 0.44 divided by 10 liters of water. With a weight of, for example, 75 kilos, the calculation is:  $75 \times 0.44 : 10 = 3.3$  liters.

Advices from other experts such as The Food Doctor Clinic in London Ian Marber and author of the book 'Water Detox' Jayne Scrivner advise at least 1.5 to 2 liters per day. If you gradually build up your water intake, you will be able to maintain it easier to drink more water. In addition, we also (more than unconsciously) thirst more often than hungry and sometimes we confuse thirst for a feeling of hunger.

Dehydration reduces your energy and your physical performance, even during exercise. A study (Yamamoto L, Judelson D et al) from California State University found that dehydration causes athletes to struggle to complete a workout with weights. Researcher Judelson states that it is plausible that dehydration not only results in less sporting presentations, but that this also applies to people who do ordinary jobs or housekeeping.

Other research in 2012 (Armstrong LE, Ganio MS, Lieberman HR and published in The Journal of Nutrition) shows that even a slight dehydration causes mood swings, concentration problems, headaches and fatigue. This was the first study in which the researchers looked at the effect of light and mild dehydration. Lieberman states that we can only experience these levels of dehydration in our daily lives if we drink too little.

### 2. GREEN SMOOTHIES

A green smoothie is made from daily fresh leaf vegetables (for example 200 grams spinach, endive or lettuce) and a maximum of two pieces of fruit (for example apple, pear, banana or orange), two to five cups of water and possibly some targeted superfoods (in which, for example, maca powder ensures for more energy). You do this together in the blender until it is a solid shake.

A green smoothie gives you immediate energy, but also a full feeling, thanks to the fibers of the leafy vegetables and enough water. When you start the day with a green smoothie, you avoid getting something delicious later in the morning. The vegetables in the smoothie give us minerals, from the fresh fruit we get vitamins. With a green smoothie you meet the generally recommended amount of fruit and vegetables in one go.

As a result, the body starts to supplement any deficiencies in vitamins and minerals, and that is the basis of a balance in your hormone system and more energy. Another advantage is that you increase your fiber intake. Research in 1999 (Holt SH, Delargy HJ et al. And published in the International Journal of Food Sciences and Nutrition) showed that a breakfast with a high fiber content gave more energy and alertness to lunch, compared to a breakfast with a high fat content.

## 4. VITAMIN B12

One of the most essential vitamins for your body is vitamin B12. This vitamin is involved in the metabolism of every cell in our body and plays a crucial role in processes such as energy production. Because B12 plays an important role in the conversion of carbohydrates, proteins and fats into energy, it is necessary that we have enough B12 in our body so that we can get energy from our food. B12 gives more energy (in case of a shortage) and also has a positive influence on the functioning of the immune system.

B12 has a balancing effect on the body: it increases your energy, but at the same time it also calms. A shortage is more common than expected, several studies have been done, described in The American Journal of Clinical Nutrition, and you could conclude that 3 to 5% of the total population would have a shortage of B12 (according to the standards of the regular medicine).

A number of different claims about B12 have been approved by the European Food Safety Authority (EFSA), an independent research institute. Their scientific research is the basis for European policy and legislation in the area of food safety. One of these claims is: B12 contributes to the reduction of fatigue and supports the energy level. Sources of vitamin B12 in food are meat, preferably organic meat from animals that have eaten grass. Fish and then preferably wild fish, especially crab, mussels and shellfish, and eggs. If you want to avoid a shortage, occasionally eat organic meat or wild fish.

If you are vegetarian you can (preferably via a spray or drops in your mouth) opt for a B12 supplement.

## FINALLY

Convenience food is offered almost everywhere. It is very easy to eat unhealthy, convenience food is available everywhere. What helps is to ensure that you always have enough ingredients at home in your fridge for a tasty healthy meal. You can give exactly your taste to this meal. Healthy eating is not a punishment and certainly not a diet, choose the pure foods that you like and make the food a treat.

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## The Dirty Dozen: 12 Foods That Are High in Pesticides



The demand for organic produce has grown exponentially over the past two decades. Americans spent over 26 billion dollars on organic produce in 2010 compared to just one billion in 1990.

One of the main concerns driving organic food consumption is pesticide exposure. Every year, the Environmental Working Group (EWG) releases the Dirty Dozen™ — a list of the 12 non-organic fruits and vegetables highest in pesticide residues. This article lists the latest Dirty Dozen foods, separates fact from fiction when it comes to pesticide use and explains simple ways to reduce exposure to pesticides.

### What Is the Dirty Dozen List?

The Environmental Working Group (EWG) is a non-profit organization that focuses on educating the public on issues like agricultural practices, natural resource protection and the impact of chemicals on human health.

Since 1995, the EWG has released the Dirty Dozen — a list of conventionally grown fruits and vegetables with the highest levels of pesticide residues.

Pesticides are substances commonly used in agriculture to protect crops from damage caused by insects, weed pressure and diseases.

To compile the Dirty Dozen list, the EWG analyzes over 38,000 samples taken by the USDA and FDA to single out the worst offenders.

The EWG uses six measures to determine pesticide contamination of produce:

- Percent of samples tested with detectable pesticides
- Percent of samples with two or more detectable pesticides
- Average number of pesticides found on a single sample
- Average amount of pesticides found, measured in parts per million
- Maximum number of pesticides found on a single sample
- Total number of pesticides found on the crop

The EWG states that this methodology “reflects the overall pesticide loads of common fruits and vegetables”. Pesticides are tightly regulated by the USDA, and recent reports indicate that pesticide levels found on 99.5% of conventional produce are well below recommendations set by the Environmental Protection Agency.

The USDA Pesticide Data Program ensures that the U.S. food supply “is one of the safest in the world,” due to rigorous testing methods. However, many experts argue that continuous exposure to pesticides — even in small doses — can build up in your body over time and lead to chronic health conditions.

Additionally, there is concern that the safe limits set by regulatory agencies don't take into consideration the health risks involved with consuming more than one pesticide at a time. For these reasons, the EWG created the Dirty Dozen list as a guide for people who want to limit pesticide exposure for themselves and their family.

## The 2018 Dirty Dozen Food List

According to the EWG, the following conventional fruits and vegetables have the highest levels of pesticide residues :

1. Strawberries: Conventional strawberries consistently top the Dirty Dozen list. In 2018, the EWG found that one-third of all strawberry samples contained ten or more pesticide residues.
2. Spinach: 97% of spinach samples contained pesticide residues, including permethrin, a neurotoxic insecticide that is highly toxic to animals.
3. Nectarines: The EWG detected residues in nearly 94% of nectarine samples, with one sample containing over 15 different pesticide residues.
4. Apples: The EWG detected pesticide residues in 90% of apple samples. What's more, 80% of the apples tested contained traces of diphenylamine, a pesticide banned in Europe (7).
5. Grapes: Conventional grapes are a staple on the Dirty Dozen list, with over 96% testing positive for pesticide residues.
6. Peaches: Over 99% of the peaches tested by the EWG contained an average of four pesticide residues.

7. Cherries: The EWG detected an average of five pesticide residues on cherry samples, including a pesticide called iprodione, which is banned in Europe.
8. Pears: Over 50% of pears tested by the EWG contained residues from five or more pesticides.
9. Tomatoes: Four pesticide residues were found on the conventionally grown tomato. One sample contained over 15 different pesticide residues.
10. Celery: Pesticide residues were found on over 95% of celery samples. As many as 13 different types of pesticides were detected.
11. Potatoes: Potato samples contained more pesticide residues by weight than any other crop tested. Chlorpropham, an herbicide, made up the bulk of the detected pesticides.
12. Sweet bell peppers: Sweet bell peppers contain fewer pesticide residues compared to other fruits and vegetables. Yet, the EWG cautions that pesticides used on sweet bell peppers “tend to be more toxic to human health.”

In addition to the traditional Dirty Dozen, EWG releases a Dirty Dozen Plus list that contains 36 more fruits and vegetables that have high levels of pesticide residues, including hot peppers, cherry tomatoes, snap peas and blueberries.

#### Summary

Strawberries top the 2018 Dirty Dozen list, followed by spinach and nectarines. Several foods on the list contained multiple pesticides, including some that have been banned in Europe.

## Are Pesticides in Our Food Supply Harmful?

There are conflicting opinions about the safety of pesticide use in produce. Though the pesticides used on crops are tightly regulated and kept well below harmful limits, there is concern over how repeated exposure to these substances affects health. Several studies have linked pesticide exposure to negative health effects, such as respiratory problems, reproductive issues, endocrine system disruption, neurological damage and increased risk of certain cancers.

Children are considered to be at a greater risk of developing pesticide toxicity than adults due to their smaller size, reduced amounts of certain detoxifying enzymes and the fact that developing brains are more susceptible to neurotoxic pesticides.

Studies have shown that children born to mothers with high pesticide exposure exhibited mental delays of up to two years, including deficits in coordination and visual memory. Childhood exposure to pesticides has also been linked to an increased risk of developing ADHD.

Another study found that pregnant women who lived near farmland where the pesticides organophosphate, pyrethroid or carbamate were sprayed were more likely to have children diagnosed with autism or autism spectrum disorders (ASDs).

Furthermore, farmers who applied certain pesticides to their crops were found to have a higher frequency of obesity and colon cancer compared to the general population. Regarding pesticide levels in the body, research shows that swapping conventional produce with organic versions significantly reduces or eliminates urinary levels of common pesticides. It's clear that high levels of pesticide exposure are associated with adverse health effects.

However, most of the available studies focus on individuals who deal directly with pesticides on a daily basis, such as agricultural workers, instead of the general public.

#### Summary

It's clear that exposure to high doses of pesticides is harmful. However, more research is needed to determine if long-term exposure to the low levels of pesticides found in food is detrimental to health.

## Does Organic Produce Contain Pesticides?

While standards for organic farming are different from conventional farming practices, organic farmers are permitted to use certain approved pesticides on their crops. Organic farmers rely heavily on crop rotation, biological plant protection and hygiene practices to protect crops. However, organic pesticides, such as copper, rotenone and spinosad, can be used in organic farming.

25 organic pesticides are approved for organic use versus the staggering 900 that are currently allowed to be used on conventional crops.

Just like pesticides used in conventional farming, organic pesticides are tightly regulated for safety but can be harmful to health in high doses.

For example, occupational exposure to the organic pesticide rotenone has been linked with an increased risk of Parkinson's disease.

Unfortunately, long-term studies examining the risks of consuming conventional fruits and vegetables versus organic fruits and vegetables in the general population are lacking.

If you're choosing organic foods for environmental reasons as opposed to health reasons, research supports that organic farming has less of an environmental impact than conventional farming.

Organic farming methods reduce carbon emissions, encourage biodiversity and protect the soil and groundwater.

#### SUMMARY

Pesticides used in both conventional and organic farming can be harmful to health in high doses.

## Should You Avoid Conventional Forms of Dirty Dozen Foods?

Many people choose organic produce in hopes of reducing their exposure to pesticides. More evidence from research studies is needed to determine if an organic diet is healthier than a diet containing conventionally grown produce.

For those with the ability to purchase organic versions of high-pesticide produce, using this practice will likely result in lower overall exposure to pesticides.

However, it should be noted that pesticides aren't just found in fruits and vegetables. They're widely used on other crops like cereal grains, as well as on lawns, flower gardens and to control insects.

Since pesticides are so widespread, the best course of action to reduce your exposure is to choose organic foods when possible and practice more sustainable garden care and insect repelling methods.

Since organic produce is often more expensive than conventional produce, it can be hard for many people to afford.

Don't worry if you're unable to purchase organic versions of the Dirty Dozen.

Eating plenty of fruits and vegetables far outweighs the risk of pesticide residues on produce, and there are ways to reduce these residues.

### **Summary**

**While organic versions of the Dirty Dozen most likely contain fewer pesticide residues, consuming conventional fruits and vegetables is perfectly safe.**

## Ways to Reduce Pesticide Exposure From Foods

The following are simple, safe and powerful methods you can use to reduce pesticide residues on produce:

- **Scrub them in cold water:** Rinsing fruit and vegetables in cold water while scrubbing them with a soft brush can remove some pesticide residues.
- **Baking soda water:** A study found that washing apples with a 1% baking soda and water mixture was more effective in removing pesticide residues than tap water alone.
- **Peel fruits and vegetables:** Removing the skin of Dirty Dozen fruits and vegetables can significantly reduce dietary intake of pesticide residues.
- **Blanching:** In one study blanching produce (exposing it to boiling, then cold, water) led to a more than 50% reduction in pesticide residue levels in all vegetable and fruit samples except peaches.
- **Boiling:** A study found that boiling strawberries significantly decreased pesticide residues, with reductions of 42.8–92.9%.
- **Rinse produce with ozonated water:** Ozonated water (water mixed with a type of oxygen called ozone) has been found to be particularly effective in removing pesticide residues from food.
- Using any of the above evidence-based practices can significantly reduce pesticide residues on fresh produce.

### Summary

Scrubbing produce under cold water, washing with a baking soda solution or peeling are all excellent ways to reduce pesticide residues on fruits and vegetables.

## The Bottom Line

The goal of the Dirty Dozen list is to let consumers know which fruits and vegetables have the highest amount of pesticide residues.

While this list can be helpful for those who are worried about pesticide use in food, it's not yet clear how concerned you should be over ingesting pesticide residues in the first place. For those who wish to err on the side of caution, it's best to purchase organic versions of the Dirty Dozen foods.

While the impact of pesticides on health is not yet fully understood, the importance of consuming fruits and vegetables for health, whether conventional or organic, is firmly established.

Therefore, you shouldn't limit your consumption based solely on pesticide usage.

## 14 Calcium-Rich Foods That Aren't a Glass of Milk

Ever since you were a little kid, you were told to drink lots of milk because it would help you build strong bones, thanks to its abundance of calcium—which is actually the most prevalent mineral in your entire body. Your nerves, muscles, and hormones depend on calcium to function properly, but nearly all of your body's calcium is stored in your bones, according to the National Institutes of Health (NIH).

While running low on calcium isn't too common for most adults, our intake tends to drop when we're most at risk for osteoporosis, a condition in which the bones become weak, increasing the risk of life-threatening falls. In a study published in *The Journal of Nutrition*, researchers found that less than 10 percent of women aged 51 or older met the recommended calcium intake from their diet alone—yet the National Osteoporosis Foundation recommends more than 1,200 milligrams (mg) of calcium daily for that age group.

For most adults, 1,000 mg of calcium per day should suffice, says the NIH. That can feel like a big number, especially if you avoid dairy products due to GI issues like lactose intolerance. The good news is that there's an easy fix for that: eat a greater variety of foods! It's true that cow's milk is one of the most concentrated sources of the mineral at about 300 mg per cup (or 8 ounces)\*. Plus, it contains vitamin D, which actually helps your body absorb calcium. However, there are so many other beneficial sources of calcium, even if you tend to avoid animal products.

You'll find dairy products on this list, but some other options may surprise you. For instance, certain leafy greens pack lots of calcium, while other similar leaves have zilch. Ready to get your fix? Here, 14 solid ways to get your daily dose of calcium that don't include glugging a glass of milk.

## Kale

Yes, you can find loads of calcium in plant foods! Kale is one of the best sources—one cooked cup packs 177 mg of calcium, while one raw cup delivers 53 mg. It's even more bioavailable than the calcium in milk, meaning your body has an easier time absorbing it, says Connie M. Weaver, PhD, distinguished professor and department head of nutrition science at Purdue University.

Not all greens are created equal, though. Oxalic acid—which is prevalent in plants like spinach, chard, and beet greens—binds to calcium, which can mess with your body's ability to absorb it properly. Even though spinach technically has a lot of calcium, it's only a tenth as bioavailable as that from milk because of the oxalic acid, says Dr. Weaver, "so it's a terrible source of calcium."

Try it: You don't need to fill up on salads to enjoy kale. This garlic shrimp and kale stir-fry is an easy and flavorful way to sneak in the dark leafy green with some lean protein and satisfying carbs.

## Bok Choy

Known as Chinese cabbage, bok choy also delivers the goods. One cup of the raw plant contains 74 mg of calcium, while one cooked cups offers 158 mg. It's one of the few plant food studied that has especially high calcium absorption.

Try it: Sauté bok choy with mushrooms and red bell peppers for a quick and tasty way to enjoy lots of veggies at once.

## Yogurt

It's no secret that dairy products are a great source of calcium, but you don't have to drink milk to get your fix. Take plain, low-fat yogurt for example. The average serving size of 8 ounces (or 1 cup) has a whopping 448 mg of calcium. On top of that, you'll get more than 10 grams of protein and roughly 4 grams of good-for-you fats, which will help keep you full until your next meal. Throw some berries on top for added sweetness, antioxidants, and fiber.

## Broccoli

Here's another green plant you can add to your list: just one cup of chopped raw broccoli packs 43 mg of calcium. If you can't stand the raw flavor, you'll get roughly double the calcium in a cooked cup of this crunchy veggie. Bonus: you'll also get a nice dose of fiber (for your digestion) potassium (for your heart), vitamin C (for your skin) and vitamin A (for healthy immune function and eyes).

Try it: There are endless ways to enjoy broccoli, whether you roast up florets for the perfect last-minute side dish or throw in a bunch to create a savory Italian lentil stew.

## Canned seafood

When it comes to convenience, canned seafood is here to save you lots of time and effort. It takes all the prep-work out of putting together a nutrient-packed meal. You wouldn't guess that foods like sardines and salmon pack in the calcium, but just one 3.75-ounce can of sardines gets you 351 mg, while 3 ounces of canned salmon delivers 241 mg. Not into fish? Canned shrimp is also a safe bet when it comes to calcium, packing 123 mg in a 3-ounce serving.

You'll reap other health perks, too. Sardines are one of the few foods rich in vitamin D, salmon is a great way to take in heart-healthy omega-3 fatty acids, while shrimp offer protein and other essential nutrients, like selenium and vitamin B12.

Try it: Sardines seem scary, but eating them with foods you already like can help you venture into new flavor territories. This Italian sardine salad is a tasty place to start.

## Cheese

Cheese is another delicious dairy product that offers lots of calcium, but the amount you get will vary depending on the type you reach for. Some great options include 1 ounce of sliced sharp cheddar (199 mg), part skim milk mozzarella (222 mg), or hard parmesan (336 mg).

While not technically a hard cheese, cottage cheese (which is made from milk curds) is also a great way to sneak in calcium if you prefer it over yogurt. One cup of 2% cottage cheese contains 251 mg of calcium and a whopping 23 grams of protein as an added bonus.

Try it: Let's be real, calories can add up fast with cheese—but these guilt-free cheesy recipes include healthier options to indulge in, like cauliflower mac and cheese, skillet lasagna, and more.

## Seeds

Sprinkling seeds on top of any dish delivers that much needed crunch, but don't let the size of them fool you—many seeds are loaded with essential nutrients, including calcium. Just 1 ounce (or 2 tablespoons) of toasted sesame seeds, for example, packs a whopping 280 mg of calcium. The same amount of ever-popular chia seeds will get you 179 mg.

While nuts, seeds, whole grains, soy isolates, and beans do contain phytic acid, which also binds to calcium, its ability to mess with absorption widely varies or doesn't have a noticeable effect. For this reason, the NIH still counts these foods toward your calcium intake—just make sure to eat a wide variety of them if you're dairy-free!

Try it: Sprinkle seeds on top of your salad, oatmeal, or smoothie bowl for added texture. You can also try whipping up this mango coconut chia pudding for a sweet and satisfying breakfast.

## Almonds

Almonds are a go-to snack for a reason. Just one serving (roughly  $\frac{1}{4}$  cup or the amount you could hold in your hand) packs tons of heart healthy unsaturated fats, some protein and fiber to tame your hunger, and you guessed it—nearly 100 mg of calcium! Just be sure you control your portions here: one serving already stacks up at about 200 calories.

Try it: Snack on them alone or get creative by making your own granola with toasted almonds and cherries.

## Tofu

Calcium-set tofu is a bone-friendly choice, especially if you avoid animal products. Look for varieties made with calcium sulfate, suggests the NIH. The typical  $\frac{1}{2}$  cup of fortified tofu will vary anywhere from 250 to 800 mg of calcium, meaning you'll get roughly the same amount of absorbable calcium as milk, says Dr. Weaver. Tofu is also a great way to sneak in more protein, fiber, and iron if you don't eat meat.

Try it: If you think tofu is bland, you haven't tried it in a hearty tofu curry, which is full of powerful flavors like turmeric, garam masala, and ground red pepper.

## Dried Figs

Figs are typically known for their sweetness, but their calcium content doesn't go completely unnoticed. One serving (about 4 figs) has 50 to 60 mg of calcium, along with a decent dose of potassium and fiber.

Try it: Stack figs on top of ricotta—which offers an extra 77 mg of calcium in two tablespoons—in this easy-to-make (and deliciously sweet) breakfast sandwich recipe.

## Whey Protein Powder

Beyond its muscle-building benefits (thanks to its complete list of essential amino acids), whey protein powder offers nearly 90 mg of calcium per scoop, since it's derived from cow's milk. And because many brands require a couple of scoops, you could easily double your intake. How to pick a powder that's actually good for you? Make sure a form of whey is listed as the first ingredient and avoid ones that contain too much sugar or artificial sweeteners.

Try it: There's no shortage of smoothie recipes that could benefit from a scoop of whey, but you can get more creative with your powder. Add whey to pancakes, protein balls, or even blueberry oatmeal.

## Soy Milk

Calcium-fortified soy milk contains just as much of the mineral as good old cow's milk, found Dr. Weaver when she conducted a test on Silk, a popular brand of plant-based milks. Look for calcium carbonate on the label, she suggests, since soy milk fortified with tricalcium phosphate doesn't perform quite as well.

On top of that, soy milk packs the most protein of all dairy-free milk options at roughly 8 grams per serving (the same as cow's milk!), one 2018 review of research in the *Journal of Food Science and Technology* found.

Try it: Whisk together 2 cups of warmed vanilla soy milk with 1 cup of your favorite brewed coffee for a a tasty latte alternative.

## Orange Juice

Match your milk with a glass of calcium-fortified orange juice instead. Just one cup of the stuff will deliver roughly 350 mg of calcium, along with vitamin D (as long as it is fortified), vitamin C, vitamin A, and even potassium.

Try it: Sip it down on its own or blend one cup into this refreshing strawberry banana smoothie.

## Fortified Cereals

We know how hard it is to find a healthy breakfast cereal, but it is possible. Why bother? Beyond their tempting tastiness, cereal brands fortified with calcium can get you anywhere from 100 to 1,000 mg of the stuff.

Look for varieties that pack as little as sugar as possible (ideally 6 grams or less, but going up to 10 won't kill you). Fiber is your friend here—the more fiber a cereal contains, the more filling it will be, so opt for one that has 5 grams of fiber or more and cap it roughly 200 calories per serving.

Try it: No need to get fancy here. Find your favorite low-sugar cereal option and top with lots of fresh fruit and calcium-rich milk of choice. If you want to avoid milk altogether, add your favorite cereal to this ultimate trail mix recipe.

\*All nutrient amounts are sourced via the standard reference food composition database from the United States Department of Agriculture.