# 24 Surprising Secrets to Get Far More Nutrients Out of Your Food



# 24 Surprising Secrets to Get Far More Nutrients Out of Your Food

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There is little doubt that foods like fruits and vegetables are far more nutrient-dense than highly processed foods. However, when it comes to getting nutrients out of food, most of us assume that simply eating these nutrient-dense foods means our bodies are absorbing all those good vitamins and minerals.

As it turns out, the process of the nutrients found in food being absorbed and used by our bodies is a little more complex. What you eat definitely matters, but <u>how</u> you eat it and how you cook and prepare your food also matters.

There's more to the story than just eating food and letting your body do the rest.

## WHAT BIOAVAILABILITY IS AND WHY IT MATTERS

Bioavailability is a term used to describe how well the active component of a drug is absorbed and used by the body. It can also refer to how well micronutrients like iron and vitamins are absorbed and utilized.<sup>1</sup>

Basically, the active constituent of a drug or the nutrients in a vitamin supplement are useless unless your body can absorb and use them. This is what bioavailability measures.

The same principle can also be applied to the food you eat. Food starts to get broken down as soon as it hits your mouth and enters your digestive system. Nutrients are extracted and transported to where they are needed in your body.

At least, that's how the system is supposed to work, but it doesn't always go this way.

Sometimes your body doesn't extract all the available nutrients because of internal factors, and sometimes the food itself, or a combination of foods, makes nutrients less bioavailable.



There's also another aspect of boosting nutrient absorption known as food combining. The idea behind it is that pairing certain foods together makes the nutrients in them more available to your body.

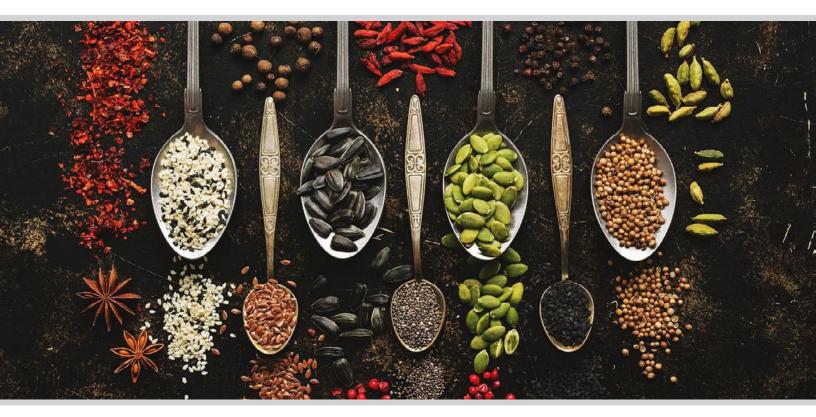
You're probably already familiar with food combining, even though you may not realize it. Many traditional food pairings work synergistically to improve nutrient bioavailability (more on that later).

Knowing some simple ways to approach the food you eat will help you get more out of it.

#### **Ancient Ways of Eating and Modern Research**

Approaching food mindfully and with the intention of getting the most out of it is by no means a new idea.

Food combining, especially, has its roots in different cultures as well as traditional medicinal practices like Ayurveda and Chinese medicine. Other practices, like consuming ginger before a meal to heat up your digestion, have ancient roots as well.



Many of these thoughtful ways of eating remained as merely traditional practices until modern research began to prove and confirm their worth. Interest in getting more nutrients out of food has spiked, and we already have some time-tested guidelines to follow.

Of course, there are many food preparation and combining ideas floating around the Internet that are unsubstantiated and unbeneficial (not to mention complicated).

To help you separate fact from fiction and only implement what will *actually* benefit you, here's a guide to food preparation, cooking, and combining tips that have real merit as well as a few things you might be doing that *decrease* your nutrient absorption.

## STORAGE AND PREPARATION TIPS FOR BOOSTING NUTRIENT ABSORPTION

#### 1 Know How to Store Your Produce

Many fruits and vegetables start losing nutrients not long after they've been harvested. Eating fresh produce from your garden or buying locally will keep the most nutrients intact, but even so, you can't eat everything right away.

This means that food storage is critical for preserving the maximum amount of nutrients possible. Heat, light, and even oxygen can cause produce to degrade, but the trickiest part is that different fruits and veggies have different ideal storage conditions.<sup>2</sup>

Before you start feeling overwhelmed, here are a few simple guidelines for correctly storing your food to keep nutrients intact:

#### **Most Vegetables**

Store in perforated bags in one of the produce drawers in your refrigerator. Keep away from fruit because fruits release ethylene gas that will speed up ripening. See the next section for exceptions.



#### Hard Skinned Vegetables, Tomatoes, and Potatoes

Vegetables with a protective skin like onions, garlic, potatoes (including sweet), winter squash, and pumpkins should be stored at room temperature out of direct sunlight. Tomatoes (whether you consider them a vegetable or fruit) can sit at room temperature in sunlight to finish ripening.

#### **Soft Fruits and Apples**

Berries, grapes, cherries, and apricots should be stored in perforated bags in the produce drawer away from vegetables. Apples that need to be stored longer than a week should also be refrigerated.

#### **Citrus and Tropical Fruits**

Many tropical fruits like mangoes, bananas, pineapples, papayas, and pomegranates as well as melons and citrus store best at room temperature and should be eaten as soon as they are ripe.

#### Stone Fruits, Kiwi, and Avocados

This group is a bit unique because you can let them ripen at room temperature and then refrigerate to preserve nutrients.

#### 2 Don't Count Out Frozen Produce

You've probably heard about how processing food, especially fresh produce, can remove a lot of healthy nutrients. This leads many people to believe that frozen fruits and vegetables have lost a lot of their vitamins and minerals.

However, freezing is a storage method, not a processing method, and much of the nutrient content can be kept intact.

One study analyzed the vitamin and mineral content of common fruits and vegetables like carrots, strawberries, peas, and blueberries. It did a side by side comparison of fresh and frozen samples stored over a period of time.

For the most part, the vitamin and mineral content of both samples were almost the same. In some cases, the frozen samples actually retained vitamins better than the fresh with the exception of beta-carotene.<sup>3, 4</sup>

In fact, frozen produce often retains nutrients better than dried fruit and much better than fruit that has been processed with heat (like applesauce or canned fruit).

To get the most nutrient-rich frozen produce, freeze it yourself immediately after harvesting or as soon as it's properly ripe. Or look for brands that freeze their produce straight from the farm.

#### 3 Chop and "Rest" Your Garlic Before Cooking

Garlic could well be considered a superfood because it contains powerful compounds that can reduce your risk of cancer and other diseases.<sup>5</sup>



There's a specific enzyme called alliinase that garlic releases to speed the formation of a compound called allicin. So far in studies, allicin appears to be the main anti-cancer compound in garlic and responsible for many other health benefits as well.<sup>6</sup>

However, heating garlic has been shown to inhibit the formation of allicin *unless* the garlic has first been chopped or crushed and allowed to stand for 10 minutes before cooking it.<sup>7</sup>

So unless you want to eat all your garlic raw, chop and rest it before heating it to make sure you're getting the most out of its disease-fighting potential.

#### 4 Cut Your Fruits and Veggies at Home

Cutting certain types of fruits and vegetables can have a beneficial effect on nutrient absorption. When you cut into fresh produce, you slice through cell walls and break them down. This can actually free up nutrients that were held in the plant's cells.

Technically, cutting into a fruit or vegetable is known as "wounding" it (at least in scientific studies). Besides making nutrients more available, several studies have found that chopping certain produce raises its antioxidant capacity.<sup>8,9</sup>

Lettuce and celery were two of the most notable vegetables that benefited from being wounded, perhaps explaining why lettuce is almost always eaten torn or chopped.

However, the downside to cutting up produce is that the antioxidant content is quickly lost due to a process called enzymatic browning. This happens when compounds in fruits or vegetables react with oxygen in the air.<sup>10</sup>



Apples turning brown after being cut is probably the most familiar example of enzymatic browning. Besides affecting flavor and texture, it also causes produce to lose nutritional value.

There is a way to get the best of both worlds: Buy whole fruits and vegetables and chop them right before cooking or eating.

#### 5 Soak Grains, Legumes, and Beans

Unless you have an allergy or sensitivity to gluten, there are lots of vitamins and minerals to be found in whole wheat and other grains. Beans and legumes are great sources of protein (but notoriously hard to digest for some people). Nuts and seeds are also packed with nutrients.

Despite the nutritional content of these types of food, your body often misses out on absorbing nutrients because of a substance known as phytic acid.

Phytic acid is found in grains, nuts, legumes, and seeds (including beans). It does have beneficial properties but is most often referred to as an "anti-nutrient." This is because It binds to micronutrients and prevents them from being bioavailable to the human digestive tract.

Genetically modifying crops is one method being tried to reduce the amount of phytic acid in these particular foods, but many eco-conscious people don't want GMOs in their diet.

A better way to reduce the phytic acid in grains, legumes, etc. is by soaking them. Soaking and cooking grains and beans has been shown to reduce the amount of phytic acid, making all the good nutrients much more available for your body to absorb.<sup>11</sup>

To soak grains, nuts, and legumes, simply cover them with warm water and set them in a warm spot for 2-12 hours before cooking. Nuts and legumes can be dried out or roasted after soaking to regain their texture.

For beans, soak them either all day or overnight, depending on when you want to cook them. You can also ferment or sprout these foods as an alternative way to decrease phytic acid.<sup>11</sup>

#### 6 Take Pre- and Probiotics

So far we've talked about how to prepare your food to get more nutrients out of it, but you can also prepare your body to absorb nutrients better by taking prebiotics and probiotics.



Despite the popularity of probiotics, researchers are still unsure how exactly they work and which ones are most beneficial. However, studies have confirmed that they do generally benefit gut health, which in turns helps your body to digest better.<sup>12</sup>

While probiotics can be thought of as beneficial, living bacteria, prebiotics are substances that good bacteria in your gut feed on. Without them, healthy bacteria will decrease, and your gut health will suffer.

Both pre- and probiotics have specifically shown an ability to improve systems of diseases like irritable bowel syndrome (IBS) and Crohn's that are notorious for hampering nutrient absorption.<sup>13, 14</sup>

Eating (or drinking) fermented products and consuming high prebiotic foods like garlic, chicory root, artichokes, onions, oats, and apples will help your body get more nutrients out of any food.

## COOKING SECRETS FOR BOOSTING NUTRIENT ABSORPTION

#### 7 Cook Carrots and Keep Them Whole

Carrots are an exception to the general rule of chopping vegetables to make nutrients more accessible to your digestive system.

Carotenes and polyacetylenes are two of the most beneficial groups of plant compounds found in carrots. Beta-carotene, specifically, is a precursor of vitamin A and an antioxidant. Falcarinol and falcarindiol, types of polyacetylenes, have both demonstrated anticancer potential.<sup>15</sup>



Of course, carrots are good for you no matter how you eat them, but studies have shown that your body can absorb *significantly* higher amounts of carotenoids from cooked carrots rather than raw. Adding olive oil in while cooking increased this amount even more.<sup>16, 17</sup>

As for polyacetylenes, they were retained better in carrots that were cooked whole rather than being diced or quartered.<sup>18</sup>

With this in mind, an easy way to get the most nutrients out of carrots is to glaze them and roast them whole.

#### 8 Cook and Cool Potatoes Before Eating

White potatoes have frequently been looked down upon because they were thought to be too starchy to be healthy.

However, potatoes actually contain a very important type of starch called resistant starch. There are four different types of resistant starches (potatoes are type 3), and unlike other starches, the resistant ones aren't digested.

Instead, they remain intact until they get to your large intestine where they feed good bacteria living there. This effectively makes them a prebiotic and able to help your body extract nutrients from food more effectively.<sup>19</sup>

There is a catch, though. Only potatoes that have been cooked and allowed to cool completely develop resistant starch. Freshly cooked ones contain easily digestible starch that gets converted quickly into glucose.<sup>20</sup>

An excellent way to get resistant starch from potatoes is to cook and cool them for something like a potato salad.

You can also cook, cool, and reheat potatoes if you'd like them to be hot, and the resistant starch will remain intact.

#### 9 Cook Tomatoes for Better Nutrient Uptake

When it comes to getting more nutrients out of food, there always seems to be a debate about cooked vs. raw. Because heat is known to destroy certain nutrients, there are many proponents of a raw food only diet.

However, raw doesn't always mean more nutrients, and this is especially true in the case of tomatoes.

Tomatoes contain a carotenoid called lycopene that is a powerful antioxidant found to decrease your risk of heart disease and cancer. Studies have consistently shown that cooking tomatoes significantly increases their lycopene content as compared to eating them raw.<sup>21, 22</sup>

Vitamin C content does decrease by 10-30% when tomatoes are cooked, but the boosted lycopene content more than makes up for this.

One study found that cooking tomatoes at a low heat of 190°F for 15 or 30 minutes showed an increase of lycopene by 171% and 164%, respectivel.<sup>21</sup>

#### 10 Cook in Cast Iron to Boost Iron Content of Food

If low iron is an issue for you, an easy way to help boost your iron intake with any cooked meal is to regularly cook in an iron skillet. A study that examined 20 different foods before and after being cooked found that 90% of them had significantly higher iron levels after being cooked in an iron skillet.<sup>23</sup>

More recent studies so far confirm these results, although they note that more research is needed into which foods gain iron the best and specific cooking methods (time, heat, etc.).<sup>24</sup>

Keep in mind that the amounts of iron you gain will be less than you would get from a supplement. Still, cooking something like apples in an iron skillet can boost their iron content, and if you have low iron, every little bit counts.



#### 11 Chop Broccoli & Other Cruciferous Veggies BEFORE Cooking

Broccoli, Brussels sprouts, cauliflower, cabbage and other cruciferous vegetables are quite possibly nature's most powerful cancer-fighting foods of all.<sup>25</sup>



And we mentioned cutting certain other vegetables earlier in this report.

However, it is crucial to finely chop, crush, or blend cruciferous vegetables before cooking (or to chew them well if eating raw) if you want to properly unleash their cancer-fighting power.

That's because the plant cell's walls must be broken apart for the enzyme myrosinase to convert glucosinolates to isothiocyanates (ITCs) – in short, this is the cancer-fighting "magic" in cruciferous vegetables. Once these ITCs are formed, they will then remain stable through the cooking process.

One more tip if you really want to unleash cruciferous veggies cancer-fighting powers: In the very same meal as your cooked cruciferous vegetables, eat some raw shredded cruciferous vegetables on the side. This can further help increase the ITC production and the benefits to you!

#### 12 Stir-Fry Red Peppers or Eat Them Raw

Red peppers are very nutrient-rich vegetables. They're loaded with vitamin C and antioxidants, including carotenoids like beta carotene and lutein.

Eating red peppers raw is a good choice because heat will cause fruits and vegetables to lose a lot of their vitamin C content. However, if you do want to cook them, the best option for getting the most nutrients it to stir-fry your peppers.

A research study from 2012 examined four different methods of cooking red peppers: boiling, steaming, stir-frying, and roasting. Stir-frying the peppers only caused minimal losses of vitamin C and antioxidants, while boiling and steaming caused significant losses.<sup>26</sup>

If stir-frying isn't your preferred method of cooking, try another dry heat option like lightly roasting them to keep as many nutrients intact as possible.



#### 13 Leave High Vitamin C Fruits (and Veggies) Uncooked

The research is clear that cooking doesn't necessarily decrease the nutrient content of food. In fact, it makes some nutrients like carotenoids more available to your body, although it does depend on *how* you cook your produce.

However, vitamin C is a major exception to this.

Vitamin C is a vital water-soluble nutrient and a powerful antioxidant. You need it to survive, and it also plays a large role in the anti-aging process, including helping your body fend off cancer and chronic diseases.<sup>27</sup>



Many fruits like citrus, blueberries, kiwi, mangoes, cantaloupe, strawberries, pineapple, and cranberries are high in vitamin C. Some leafy vegetables and bell peppers also pack in a good amount.

In studies, vitamin C is one of the nutrients that is consistently lost when food is cooked or heated. It doesn't disappear completely, but levels can drop significantly.<sup>28</sup>

To make sure you're getting enough of this powerful nutrient, eat a lot of your fruit raw and mix in some raw vegetables like kale.

## FOOD COMBINATIONS FOR BETTER NUTRIENT ABSORPTION

#### 14 Pair Vitamin C with Iron-Rich, Plant-Based Foods

Iron is an important nutrient needed for growth, development, oxygen transport, and other important functions in your body.

There are two main forms of iron: heme and nonheme. Heme iron is easily absorbed (and often overabsorbed) by your body and comes mainly from meat and other animal sources. Nonheme iron is less readily absorbed and is the type found mainly in plant-based sources.<sup>29</sup>

Many people get too much iron. But some people, including some vegetarians and vegans, get too little. Even though they may be eating good sources of the mineral, nonheme iron can be harder for our bodies to assimilate.<sup>30</sup>

However, studies show that adding vitamin C (also known as ascorbic acid) to a plant-based meal significantly enhances the absorption of nonheme iron. Interestingly, it doesn't have a great effect on heme iron or types of iron that are considered contaminants.<sup>31</sup>

To boost your iron absorption, try using a citrus dressing on leafy greens, adding mandarin oranges or strawberries to a salad, or eating dried mango with nuts and seeds.

#### 15 Pair Avocados with Leafy Greens and Tomatoes

Avocados are a rich source of nutrients all on their own, but they can also help you better absorb the nutrients from other vegetables.

The healthy fats in avocados has been shown to improve the absorption of fat soluble vitamins (A, D, E, and K). This makes them good to pair with many vegetables, but they make an especially good match for leafy greens and tomatoes.<sup>32</sup>



Greens like spinach, kale, and collards have a good amount of both vitamin A and vitamin K. Adding avocado to a salad with a mix of greens will help your body to absorb both of these nutrients better.

Tomatoes also contain vitamin A along with all four major carotenoids: alpha carotene, beta carotene, lutein, and lycopene.<sup>33</sup>

These specific carotenoids are powerful antioxidants that may prevent cancer and eye diseases. Beta carotene can also be converted by your body into vitamin A, an essential nutrient.<sup>34</sup>

Like the vitamins already mentioned, carotenoids are fat soluble and can be made more available to your body by the healthy fats in avocadoes. Besides this, another study showed that pairing avocado with tomato sauce also enhanced the conversion of beta carotene into vitamin A.<sup>35, 36</sup>

The bottom line: This is great news for guacamole lovers! Just make sure you've got tomato in your guacamole, and you're good to go.

#### 16 Use Lots of Herbs and Spices on High Fat Meals

Not only are herbs and spices filled with lots of nutrients and antioxidants, they pair especially well with high fat foods and stop some of the negative effects of consuming a lot of fat.

Usually, after eating a meal that is high in fat, you end up with a high level of triglycerides in your bloodstream. Consistently raised triglyceride levels are a risk factor for developing heart disease.<sup>37</sup>

In a study done by Penn State University, researchers used a blend of antioxidant-rich spices like turmeric, cloves, black pepper, and rosemary to evaluate its effects on a high-fat meal.

The results showed that using about two tablespoons of the spice mix to season the meal reduced triglyceride response by about 30%. It also increased antioxidant activity in the bloodstream by 13%.<sup>38</sup>



Antioxidants have some of the greatest disease-fighting benefits of any known nutrient and are found abundantly in many herbs and spices. Adding them to any meal will only benefit your nutrient intake, but they do clearly have special properties for a high-fat pairing.<sup>39</sup>

#### 17 Pair Vitamin D with Calcium-Rich Foods

Calcium is a vital nutrient for bone health, and it becomes even more important to get enough of it as we age, especially for women. Deficiency is common, even in developed countries, and is a major contributor to the development of osteoporosis.<sup>40, 41</sup>

There are many foods that contain a rich source of calcium, such as beans, lentils, almonds, spinach, and kale.

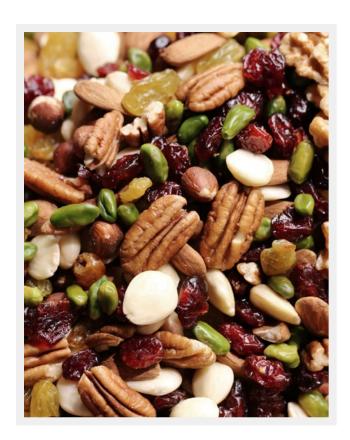
So why are many people deficient in calcium if it's found in so many foods?

The biggest answer seems to be that even when you're eating good sources of calcium, it doesn't get absorbed into your intestines without the presence of vitamin D. Unfortunately, many people have insufficient levels of vitamin D, which means calcium absorption is impaired.<sup>42</sup>

Vitamin D is available in a much more limited number of foods, mainly oily fish (wild caught), wild mushrooms, and fortified foods. The biggest source of vitamin D is sunlight, but sunscreen use can actually stop the UVB rays that promote the production of vitamin D from reaching your skin.<sup>43</sup>

It may sound strange, but one of the best pairings for calcium-rich foods is sunlight!

Of course, in the winter months, you may want to opt for a natural vitamin D supplement to keep your body absorbing calcium until sunny days return.



#### 18 Combine Nuts and Fruits

Trail mix, anyone?

Research indicates that fruits high in vitamin C make a great partner for nuts that are high in vitamin E. Both of these vitamins are powerful anti-aging antioxidants that are essential for skin health, and they appear to work better together.<sup>44</sup>

Vitamin C has many functions in your body and skin, but one of the most important ones is its work as a photoprotector, meaning it protects your skin from harmful UV damage.

This already helps to prevent premature skin aging and skin cancer, but the effects of vitamin C are magnified when it's combined with vitamin E. They work together synergistically and can be four times as effective when combined.

Besides this, research also indicates that vitamin C helps to regenerate vitamin E in your body.<sup>45</sup>

Pairing fruits like citrus, strawberries, cherries, mango, and blueberries with seeds and nuts like almonds or sunflower seeds can help your body get the most out of both nutrients.

Dried fruits do often lose some of their vitamin C content during the drying process, but they are still good to combine with a variety of nuts in a classic trail mix.

#### 19 Add Lemon or Another Citrus to Green Tea

The many health benefits of green tea have been very well researched. A lot of attention has focused on one of the main components of green tea, epigallocatechin-gallate (EGCG).

EGCG is a powerful antioxidant that may help prevent cancer and other diseases, reduce inflammation in your body, and promote longevity. It belongs to a group of flavonoids called catechins, which are thought to be responsible for many of the health benefits of tea.<sup>46, 47</sup>

The downside is that, like many nutrients, catechins aren't always bioavailable and may not be absorbed into your intestines at their full potential.

However, researchers have found that simply adding a citrus juice to your green tea can increase the absorption rate of catechins significantly. ECGC availability increased by 50-76% just with the addition of citrus.<sup>48</sup>

The juices of orange, lemon, grapefruit, and lime were all analyzed in the study and found effective, so add a splash of any of these to your next green tea drink!

## AVOID THESE PRACTICES THAT CAN IMPAIR NUTRIENT ABSORPTION

#### 20 Don't Drink Tea or Coffee with a Meal

Tea and coffee both contain substances known as polyphenols that are powerful antioxidants with known health benefits. They are found abundantly in plants and provide protection against cancer, heart disease, diabetes, and more.<sup>49</sup>



Although polyphenols are very good for you in general, they do bind to nonheme iron (the plant-based kind) and prevent your body from absorbing it.

Studies have found that drinking polyphenol-rich coffee or tea at the same time as consuming a meal with nonheme iron prevents a lot of that iron from being absorbed. The percentage of iron blocked was from 64-94% for black tea and about 39% for coffee. <sup>50, 51</sup>

Of course, if you're eating a meal with not much iron in it, coffee and tea may have little effect on nutrient absorption.

But if you rely mainly on plant sources for your daily iron intake, it's much better to drink your coffee or tea in between meals rather than while eating or immediately following a meal.

#### 21 Avoid Overconsuming Alcohol

Alcohol is very much a part of the relaxation and social aspects of many cultures, but drinking too much of it can actually impair the ability of your body to absorb nutrients from food.

One of the reasons for this is that alcohol can decrease the secretion of digestive enzymes that normally help your body to break down and digest food. Long term alcohol use also has a negative impact on your liver, which is another important organ for healthy digestion.

An impaired ability to absorb nutrients from food because of alcohol use is known as secondary malnutrition. It's called this because you may be taking in enough nutrients, but your body isn't able to access them.<sup>52</sup>

The most affected nutrients are amino acids, proteins, and vitamins, especially vitamin A and vitamin C.53

Poor nutrient absorption is most severe in the case of long-term, heavy drinkers, but even moderate drinking can start affecting your body's ability to extract nutrients from food.

Go easy on the alcohol to keep getting the most out of what you eat.



#### 22 Don't Let Your Stress Levels Go Unchecked

Reducing stress is easier said than done, but it can have a big impact on your digestion and how well your body can absorb nutrients from food.

Studies have shown that both short- and long-term stress have a negative impact on your gut and gastrointestinal tract. Chronic stress, especially, negatively impacts the beneficial bacteria that live in your gut and can lead to digestive disorders like irritable bowel syndrome (IBS).<sup>54</sup>

This means that the longer stress is impacting you, the greater chance there is of nutrient absorption becoming impaired.

Obviously, it's impossible to get rid of all sources of stress in your life, but it is important to find ways to manage chronic stress. Another area to focus on is practicing more mindful eating and eliminating stressors and distractions so that you can enjoy your meal times.

#### 23 Avoid Becoming Dehydrated

Water is an often overlooked nutrient, perhaps because it's so common that we don't think about it much.

Besides being a vital nutrient we can't live without, water also has a big impact on your digestive system and how well it can absorb nutrients from food. Being well hydrated helps to keep food moving through your intestines and helps it get broken down.<sup>55</sup>



Water is important for the absorption of nutrients in general and is especially needed for your body to extract water-soluble vitamins (C and B complex). It also is needed to transport nutrients throughout your body.<sup>56</sup>

Even though you likely don't get extremely dehydrated under normal circumstances, mild dehydration can still happen if you aren't keeping up your water intake.

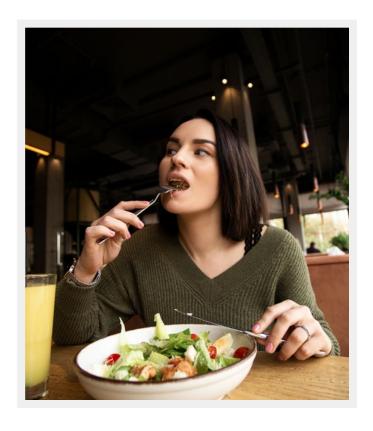
To get the most nutrients out of food, make sure you drink lots of nature's best liquid throughout the day!

#### 24 Chew, Chew Slowly

Parents have advised this to children for eons, and it's true.

Slowing down and chewing your food is key to breaking down food and activating enzymes in the mouth that help to properly digest nutrients. For example, Purdue University research found that when people chewed almonds 40 times, they absorbed more healthy fat versus chewing them just 10 times.<sup>57</sup>

You don't need to count your chews, of course. The ideal is to just chew until your food has a mushy consistency inside your mouth. An additional bonus is that in doing so, you typically can enjoy the taste of the foods and the experience in eating more!



### START GETTING MORE NUTRIENTS OUT OF YOUR FOOD

By using these proven tactics, you can start getting more nutrients out of your food with just a few subtle changes. Paying attention to how you prepare and cook certain foods and what you combine them with can have a big impact on your health.

The good news is that many of the best food combinations are both delicious and traditional.

Other tactics, like cooking and cooling potatoes, take a bit of time to get used to but can easily become a habit.

If you're already on the path to healthy eating and want to get even more out of your food, start incorporating some of these outlined strategies to significantly boost the nutrients your body is absorbing!



## NOW, GET READY FOR THE MOST LIFE-CHANGING HEALTH SECRETS OF ALL...

Here at The Art of Anti-Aging, the "anti" means we're against all the destructive lies about getting older out there that equate hitting your 30s, 40s, 50s, 60s and beyond with becoming increasingly undesirable, incapable, doomed to suffering and disease, and "over the hill."

We're *against* all the toxic "solutions" and toxic thinking being pushed on people by certain powersthat-be who so often play upon those destructive aging lies and manipulate people through fear and even "convenience."

Instead, we are certain that when you take the right steps, your "middle years" and "golden years" will truly be your best years.

And we are 100% committed to providing you the <u>proven</u> most effective health and wellness steps to achieve that... to look your best, feel amazing, avoid and overcome disease, and live a long life doing it.

The special report was just a small taste of that (and please DO share this report with family and friends)...

Whereas the online Younger, Longer: The Insider's Health Summit truly is the PINNACLE of our mission.

Because you're going to get total clarity on the simple and MOST EFFECTIVE secrets you can put into play in your life starting right now to look your best, feel amazing, avoid and even overcome disease, and live a long life doing it...

From 22 of the world's most renowned and trusted anti-aging and longevity doctors and researchers.

<u>Head here now to sign up for the FREE online Younger, Longer: The Insiders Health Summit</u> if you aren't signed up already and...

Head here to get the COMPLETE recordings and transcripts of the entire summit if you don't feel you'll be able to hear all 7 days of this essential event when it airs live, or if you're the type who prefers to hear it all and read it all on your own schedule, when and where and as often as you choose!





22 Top Experts Reveal the Simple and Most Effective Secrets to Look & Feel Younger Now, Avoid Disease, and Live Long



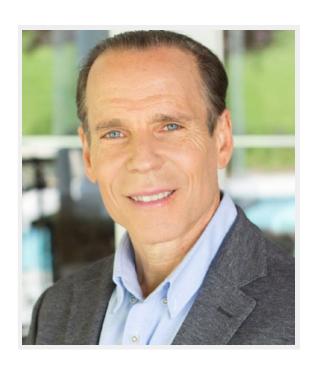
"The times have been challenging for all of us, and we could certainly use some solid ground to walk on. That makes this a great time to lean into the wisdom of some of the foremost natural health leaders of our times. And that's one of the things you're getting in Younger, Longer: The Insider's Health Summit. My friend, longtime natural health researcher and advocate Brian Vaszily, invites you to join him in uncovering the most effective steps you can take to look and feel your best, and to add years to your life and life to your years."

Ocean Robbins
Co-founder & CEO, Food Revolution Network

"What steps should you take, starting right now, that will make the biggest difference in how long and how well you live? That is the mission-critical question my good friend and natural health veteran, Brian Vaszily, is challenging 22 of today's leading doctors and researchers to answer for you in Younger, Longer: The Insider's Health Summit. Brian is an outstanding host, what you'll learn is simply crucial, so be sure to listen closely to this powerful online event!"

#### Dr. Joel Fuhrman

World-Renowned M.D., 7-Time NY Times Bestselling Author



#### **SOURCES**

- Davidsson, L., & Tanumihardjo, S.A. (2013). Bioavailability. Encyclopedia of Human Nutrition (Third Edition). Retrieved November 6, 2020, from <a href="https://www.sciencedirect.com/topics/medicine-and-dentistry/bioavailability">https://www.sciencedirect.com/topics/medicine-and-dentistry/bioavailability</a>
- Khan, F., Bhat, S.A., & Narayan, S. (2017). Storage Methods for Fruits and Vegetables. *ResearchGate*. Retrieved November 6, 2020, from <a href="https://www.researchgate.net/publication/317014767">https://www.researchgate.net/publication/317014767</a> Storage Methods for Fruits and Vegetables
- Bouzari, A., Holstege, D., & Barrett, D.M. (2015). Vitamin retention in eight fruits and vegetables: a comparison of refrigerated and frozen storage. *J Agric Food Chem*. Retrieved November 6, 2020, from <a href="https://pubmed.ncbi.nlm.nih.gov/25526594/">https://pubmed.ncbi.nlm.nih.gov/25526594/</a>
- Bouzari, A., Holstege, D., & Barrett, D.M. (2015). Mineral, fiber, and total phenolic retention in eight fruits and vegetables: a comparison of refrigerated and frozen storage. *J Agric Food Chem*. Retrieved November 6, 2020, from <a href="https://pubmed.ncbi.nlm.nih.gov/25525668/">https://pubmed.ncbi.nlm.nih.gov/25525668/</a>
- Trio, P.Z., You, S., He, X., He, J., Sakao, K., & Hou, D-X. (2014). Chemopreventive functions and molecular mechanisms of garlic organosulfur compounds. *Food Funct*. Retrieved November 9, 2020, from <a href="https://pubmed.ncbi.nlm.nih.gov/24664286/">https://pubmed.ncbi.nlm.nih.gov/24664286/</a>
- Bayan, L., Koulivand, P.H., & Gorji, A. (2014). Garlic: a review of potential therapeutic effects. *Avicenna J Phytomed*. Retrieved November 9, 2020, from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4103721/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4103721/</a>
- 7. Song, K. & Milner, J.A. (2001). The influence of heating on the anticancer properties of garlic. *J Nutr*. Retrieved November 9, 2020, from <a href="https://pubmed.ncbi.nlm.nih.gov/11238815/">https://pubmed.ncbi.nlm.nih.gov/11238815/</a>
- Reyes, L.F., Villarreal, J.R., & Cisneros-Zevallos, L. (2007). The increase in antioxidant capacity after wounding depends on the type of fruit or vegetable tissue. *Food Chemistry*. Retrieved November 9, 2020, from <a href="https://www.sciencedirect.com/science/article/abs/pii/S0308814606002603">https://www.sciencedirect.com/science/article/abs/pii/S0308814606002603</a>
- Kang, H-M., & Saltveit, M. E. (2002). Antioxidant capacity of lettuce leaf tissue increases after wounding. *J Agric Food Chem*. Retrieved November 9, 2020, from <a href="https://pubmed.ncbi.nlm.nih.gov/12475267/">https://pubmed.ncbi.nlm.nih.gov/12475267/</a>
- Holderbaum, D.F., Kon, T., Kudo, T., & Guerra, M.P. (2010).
   Enzymatic Browning, Polyphenol Oxidase Activity, and Polyphenols in Four Apple Cultivars: Dynamics during Fruit Development. *HortScience*. Retrieved November 9, 2020, from <a href="https://journals.ashs.org/hortsci/view/journals/hortsci/45/8/article-p1150.xml">https://journals.ashs.org/hortsci/view/journals/hortsci/45/8/article-p1150.xml</a>

- Gupta, R.K., Gangoliya, S.S., & Singh, N.K. (2015). Reduction of phytic acid and enhancement of bioavailable micronutrients in food grains. *J Food Sci Technol*. Retrieved November 9, 2020, from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4325021/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4325021/</a>
- 12. Hemarajata, P., & Versalovic, J. (2013). Effects of probiotics on gut microbiota: mechanisms of intestinal immunomodulation and neuromodulation. *Therap Adv Gastroenterol*. Retrieved November 9, 2020, from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3539293/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3539293/</a>
- Didari, T., Mozaffari, S., Nikfar, S., & Abdollahi, M. (2015).
   Effectiveness of probiotics in irritable bowel syndrome:
   Updated systematic review with meta-analysis. World J Gastroenterol. Retrieved November 9, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4356930/
- Davani-Davari, D., et al. (2019). Prebiotics: Definition, Types, Sources, Mechanisms, and Clinical Applications. *Foods*. Retrieved November 9, 2020, from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6463098/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6463098/</a>
- Purup, S., Larsen, E., & Christensen, L.P (2009). Differential Effects of Falcarinol and Related Aliphatic C17-Polyacetylenes on Intestinal Cell Proliferation. *J Agric Food Chem*. Retrieved November 9, 2020, from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2745230/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2745230/</a>
- Livny, O., et al. (2003). Beta-carotene bioavailability from differently processed carrot meals in human ileostomy volunteers. *Eur J Nutr*. Retrieved November 9, 2020, from https://pubmed.ncbi.nlm.nih.gov/14673607/
- 17. Hornero-Mendez, D., & Minguez-Mosquera, M.I. (2007).
  Bioaccessibility of carotenes from carrots: Effect of cooking and addition of oil. *Innovative Food Science & Emerging Technologies*. Retrieved November 9, 2020, from <a href="https://www.sciencedirect.com/science/article/abs/pii/S146685640700046X">https://www.sciencedirect.com/science/article/abs/pii/S146685640700046X</a>
- Warner, S., Seal, C., Haldar, S., & Brandt, K. (2016). Retention of polyacetylenes and carotenoids in carrot during cooking. *Proceedings of the Nutrition Society*. Retrieved November 9, 2020, from <a href="https://www.cambridge.org/core/journals/proceedings-of-the-nutrition-society/article/retention-of-polyacetylenes-and-carotenoids-in-carrot-during-cooking/2BFA1874D0370ACA650245CD2D15EBD0</a>
- Lockyer, S., & Nugent, A.P. (2017). Health effects of resistant starch. *Nutrition Bulletin*. Retrieved November 9, 2020, from https://onlinelibrary.wiley.com/doi/abs/10.1111/nbu.12244
- 20. Slavin, J.L. (2013). Carbohydrates, Dietary Fiber, and Resistant Starch in White Vegetables: Links to Health

- Outcomes. *Advances in Nutrition*. Retrieved November 9, 2020, from <a href="https://academic.oup.com/advances/article/4/3/351S/4644810">https://academic.oup.com/advances/article/4/3/351S/4644810</a>
- 21. Cornell University. (2002). Cooking Tomatoes Boosts Disease-Fighting Power. *ScienceDaily*. Retrieved November 9, 2020 from <a href="https://www.sciencedaily.com/releases/2002/04/020422073341.htm">www.sciencedaily.com/releases/2002/04/020422073341.htm</a>
- Perdomo, F., Franquiz, F.C., Cabrera, J., & Serra-Majem, L. (2012). [Influence of cooking procedure on the bioavailability of lycopene in tomatoes]. *Nutr Hosp*. Retrieved November 9, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/23478703/">https://pubmed.ncbi.nlm.nih.gov/23478703/</a>
- 23. Brittin, H.C., & Nossaman, C.E. (1986). Iron content of food cooked in iron utensils. *J Am Diet Assoc*. Retrieved November 9, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/3722654/">https://pubmed.ncbi.nlm.nih.gov/3722654/</a>
- 24. Geerligs, P.D.P, Brabin, B.J., & Omari, A.A.A. (2003). Food prepared in iron cooking pots as an intervention for reducing iron deficiency anaemia in developing countries: a systematic review. *J Hum Nutr Diet*. Retrieved November 9, 2020 from https://pubmed.ncbi.nlm.nih.gov/12859709/
- 25. https://www.drfuhrman.com/elearning/blog/209/the-cancer-fighting-power-of-cruciferous-vegetables
- 26. Hwang, I.G., Shin, Y.G., Lee, S., Lee, J., & Yoo, S.M. (2012). Effects of Different Cooking Methods on the Antioxidant Properties of Red Pepper (*Capsicum annuum* L.). *Prev Nutr Food Sci*. Retrieved November 12, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3866734/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3866734/</a>
- Padayatty, S.J., et al. (2003). Vitamin C as an antioxidant: evaluation of its role in disease prevention. *J Am Coll Nutr*. Retrieved November 12, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/12569111/">https://pubmed.ncbi.nlm.nih.gov/12569111/</a>
- Lee, S., Choi, Y., Jeong, H.S., Lee, J., & Sung, J. (2018). Effect
  of different cooking methods on the content of vitamins and
  true retention in selected vegetables. *Food Sci Biotechnol*.
  Retrieved November 12, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6049644/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6049644/</a>
- 29. West, A.R. & Oates, P.S. (2008). Mechanisms of heme iron absorption: Current questions and controversies. *World J Gastroenterol*. Retrieved November 6, 2020, from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2725368/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2725368/</a>
- Peneau, S., et al. (2008). Relationship between iron status and dietary fruit and vegetables based on their vitamin C and fiber content. *Am J Clin Nutr*. Retrieved November 12, 2020 from https://pubmed.ncbi.nlm.nih.gov/18469253/
- Lynch, S.R., & Cook, J.D. (1980). Interaction of vitamin C and iron. *Ann N Y Acad Sci*. Retrieved November 12, 2020 from https://pubmed.ncbi.nlm.nih.gov/6940487/
- 32. Dreher, M.L., & Davenport, A.J. (2013). Hass Avocado

- Composition and Potential Health Effects. *Crit Rev Food Sci Nutr*. Retrieved November 12, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664913/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664913/</a>
- 33. Marti, R., Rosello, S., & Cebolla-Cornejo, J. (2016). Tomato as a Source of Carotenoids and Polyphenols Targeted to Cancer Prevention. *Cancers (Basel)*. Retrieved November 12, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4931623/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4931623/</a>
- 34. Johnson, E.J. (2002). The role of carotenoids in human health. *Nutr Clin Care*. Retrieved November 12, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/12134711/">https://pubmed.ncbi.nlm.nih.gov/12134711/</a>
- 35. Unlu, N.Z., Bohn T., Clinton, S.K., & Schwartz, S.J. (2005). Carotenoid Absorption from Salad and Salsa by Humans Is Enhanced by the Addition of Avocado or Avocado Oil. *The Journal of Nutrition*. Retrieved November 12, 2020 from <a href="https://academic.oup.com/jn/article/135/3/431/4663712">https://academic.oup.com/jn/article/135/3/431/4663712</a>
- 36. Kopec, R.E., et al. (2014). Avocado Consumption Enhances Human Postprandial Provitamin A Absorption and Conversion from a Novel High–β-Carotene Tomato Sauce and from Carrots. *J Nutr*. Retrieved November 12, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4093981/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4093981/</a>
- Budoff, M. (2016). Triglycerides and Triglyceride-Rich Lipoproteins in the Causal Pathway of Cardiovascular Disease. *Am J Cardiol*. Retrieved November 12, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/27184174/">https://pubmed.ncbi.nlm.nih.gov/27184174/</a>
- 38. Penn State. (2011). Antioxidant spices, like turmeric and cinnamon, reduce negative effects of high-fat meal. *ScienceDaily*. Retrieved November 12, 2020 from <a href="https://www.sciencedaily.com/releases/2011/08/110810101607.htm">www.sciencedaily.com/releases/2011/08/110810101607.htm</a>
- 39. Yashin, A., Yashin, Y., Xia, X., & Nemzer, B. (2017). Antioxidant Activity of Spices and Their Impact on Human Health:
  A Review. *Antioxidants (Basel)*. Retrieved November 12, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5618098/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5618098/</a>
- 40. Balk, E.M., et al. (2017). Global dietary calcium intake among adults: a systematic review. *Osteoporos Int*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5684325/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5684325/</a>
- 41. Sunyecz, J.A. (2008). The use of calcium and vitamin D in the management of osteoporosis. *Ther Clin Risk Manag*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2621390/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2621390/</a>
- 42. Khazai, N., Judd, S.E., & Tangpricha, V. (2008). Calcium and Vitamin D: Skeletal and Extraskeletal Health. *Curr Rheumatol Rep*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669834/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669834/</a>
- 43. Kennel, K.A., Drake, M.T., & Hurley, D.L. (2010). Vitamin D Deficiency in Adults: When to Test and How to Treat. *Mayo*

- *Clin Proc.* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2912737/
- 44. Traber, M.G., & Stevens, J.F. (2011). Vitamins C and E: Beneficial effects from a mechanistic perspective. *Free Radic Biol Med*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156342/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156342/</a>
- 45. Telang, P.S. (2013). Vitamin C in dermatology. *Indian Dermatol Online J*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673383/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673383/</a>
- 46. Suzuki, Y., Miyoshi, N., & Isemura, M. (2012). Health-promoting effects of green tea. *Proc Jpn Acad Ser B Phys Biol Sci*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3365247/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3365247/</a>
- 47. Chacko, S.M., Thambi, P.T., Kuttan, R., & Nishigaki, I. (2010). Beneficial effects of green tea: A literature review. *Chin Med*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2855614/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2855614/</a>
- Green, R.J., Murphy, A.S., Schulz, B., Watkins, B.A., & Ferruzzi, M.G. (2007). Common tea formulations modulate in vitro digestive recovery of green tea catechins. *Mol Nutr Food Res*. Retrieved November 13, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/17688297/">https://pubmed.ncbi.nlm.nih.gov/17688297/</a>
- 49. Pandey, K.B., & Rizvi, S.I. (2009). Plant polyphenols as dietary antioxidants in human health and disease. *Oxid Med Cell Longev*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835915/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835915/</a>
- Hurrell, R.F., Reddy, M., & Cook, J.D. (1999). Inhibition of non-haem iron absorption in man by polyphenolic-containing beverages. *Br J Nutr*. Retrieved November 13, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/10999016/">https://pubmed.ncbi.nlm.nih.gov/10999016/</a>
- 51. Morck, T.A., Lynch, S.R., & Cook, J.D. (1983). Inhibition of food iron absorption by coffee. *Am J Clin Nutr*. Retrieved November 13, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/6402915/">https://pubmed.ncbi.nlm.nih.gov/6402915/</a>
- 52. Lieber, C.S. (2003). Relationships Between Nutrition, Alcohol Use, and Liver Disease. *Alcohol Res Health*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6668875/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6668875/</a>
- American Physiological Society (APS). (2016). Chronic drinking interferes with absorption of critical vitamins by pancreas. *ScienceDaily*. Retrieved November 13, 2020 from www.sciencedaily.com/releases/2016/05/160512085348.htm
- 54. Konturek, P.C., Brzozowski, T. & Konturek, S.J. (2011). Stress and the gut: pathophysiology, clinical consequences, diagnostic approach and treatment options. *J Physiol Pharmacol*. Retrieved November 13, 2020 from <a href="https://pubmed.ncbi.nlm.nih.gov/22314561/">https://pubmed.ncbi.nlm.nih.gov/22314561/</a>

- Popkin, B.M., D'Anci, K.E., & Rosenberg, I.H. (2010). Water, Hydration and Health. *Nutr Rev*. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2908954/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2908954/</a>
- Said, H.M. (2011). Intestinal absorption of water-soluble vitamins in health and disease. Biochem J. Retrieved November 13, 2020 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4049159/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4049159/</a>
- 57. https://www.medicalnewstoday.com/articles/263541#1