

WELLNESS & LIFESTYLE BASICS: Keys to living LONGER and BETTER

ACTION LIST TO START TODAY! IT'S UP TO YOU!

The 5 pillars of health: EAT better, MOVE more, LOVE more, STRESS less & SLEEP well

1. **EAT LESS.** We simply eat too much. Portion sizes have increased by 30% since 1970. Don't take seconds.
2. **EAT LESS OFTEN.** Eating 3 times a day is habit, not necessity. Skip an occasional meal. NO snacks. It adds up.
3. **EAT MORE SLOWLY.** When you eat too fast, you overeat, enjoy it less and even digest worse. Chew more.
4. **NUTRITION: ADDING** more of the following to your diet, even one serving, will help significantly:
 - a. **FRUITS.** At least 4-5 servings a day. Whole fruit. Juice does not count (too much sugar with no fiber).
 - b. **VEGETABLES.** The more the better. Try to have at least 2-3 servings with each meal. 6-9 a day.
 - c. **GRAINS & STARCHES.** Unrefined oats, rice, quinoa, barley, potatoes, corn ... They are very healthful.
 - d. **BEANS & LEGUMES.** The longest-lived and healthiest populations on earth eat beans & legumes daily.
 - e. **NUTS & SEEDS.** Great source of healthy fats, protein & nutrients. Not too much (18gm of fat/handful).
 - f. **WATER.** PLAIN & FILTERED. It's the only beverage we need. Juice, soda... full of sugar & chemicals.
 - g. **FIBER.** The key to health, our fiber consumption is extremely low, and it ONLY comes from plants.
5. **NUTRITION: LIMIT or ELIMINATE** the following:
 - a. **SUGAR** including artificial sweeteners, honey, agave and even stevia. Whole fruits are fine and healthy.
 - b. **PROCESSED FOOD.** Nothing packaged or containing more than 5 ingredients. Keep food whole.
 - c. **REFINED FLOUR PRODUCTS.** Pastries, pastas, white bread, pizza, bagels... These are the bad carbs.
 - d. **FAT.** Fat makes you fat! It impairs insulin function and it stiffens blood vessels. Keep it < 30gm/day.
 - e. **DAIRY** (milk, cheese, yogurt...) Huge source of fat, salt and inflammation. It's poison. You don't need it.
 - f. **MEAT.** Including chicken, fish and eggs. The healthiest populations eat little to no meat and no dairy.
There is **NO SUCH THING AS LEAN MEAT.** Even a chicken breast has as much cholesterol as a steak!
 - g. **ALCOHOL.** It adds empty calories, causes inflammation, causes cancer and leads to bad choices.
 - h. **SALT.** It raises blood pressure and actually stimulates hunger and cravings. At least don't add extra salt.
6. **MOVE MORE** and **EXERCISE.** Constant movement is most important but exercise helps, especially weights.
7. Manage **STRESS** better. Pray, meditate, be mindful, be grateful... Stress is damaging and adds to weight gain.
8. **SLEEP** more and sleep better. Ideally, 7-9 hours a night. Quality is more important than quantity.
9. **SOCIALIZE.** Spend time with family and friends. Join a group or a club, volunteer... Put down the phone/iPad.
10. Take care of your **TEETH** and **GUMS.** Bad mouth care is a huge source of inflammation and affects the heart.
11. **SUN EXPOSURE.** Get a healthy amount but don't overdo it. The sun is our main source of vitamin D. and life.
12. NO **TOBACCO** products (cigarettes, cigars or chewing tobacco). Even 1 cigarette a day affects arterial function.
13. Limit **TOXIN** exposure. Vaping, cleaners, X-Rays, plastics, pesticides, radon, makeup, pollution... It adds up.
14. **RESPECT THE ENVIRONMENT.** Global warming **IS** having a major impact on us. The best way to reverse it is to eat a plant-based diet. Decrease plastic use. Stop wasting food. Recycling is good but it's not the solution.
15. **RESPECT THE ANIMALS.** 99% of the animal products we consume come from inhumane factory farms. It's important to understand and appreciate where our food comes from. Compassion should extend to ALL creatures.

WEBSITES:

www.nutritionfacts.org
www.masteringdiabetes.org
www.plantricianproject.org
www.bluezones.com
www.eattobeat.org
www.ewg.org
www.ornish.com
www.onegreenplanet.org
www.21daykickstart.org
www.forksoverknives.com

MOVIES:

"**Forks over Knives**" A MUST see
"Earthlings" with Joaquin Phoenix
"Cowspiracy" about the food industry
"Food Choices"
"Simply Raw" (reversing diabetes)
BOOKS and COOKBOOKS:
"**How Not to Die**" Michael Greger
"**The Whole Heart Solution**" Joel Kahn
"**Prevent & Reverse Heart Disease**"
Dr. Caldwell Esselstyn

"**The Alzheimer's Solution**" Dr. Sherzai
"**Program for Reversing Diabetes**" and
"**Your Body in Balance**" Dr. Neal Barnard
"**Super Immunity**" Dr. Joel Fuhrman
"**Autoimmune Fix**" Dr. Tom O'Bryan
"**The Blue Zones**" Dan Buettner
"**Fiber Fueled**" Dr. Will Bulsiewicz
"**The Whole Foods Diet**" John Mackey
"**The Plant Power Way**" Rich Roll
"**Nourish. The Definitive Plant-Based Guide for Families**" Brenda Davis, ND

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SOME FACTS AND STATISTICS

The US ranks 1st in healthcare spending but only 42nd in life expectancy and 48th in chronic disease rate. Something is not right! Lifespan has increased yearly since tracking started EXCEPT for the last 3 years when we started a backward trend.

THE STANDARD AMERICAN DIET (SAD) is pretty sad indeed! Here are some statistics directly related to our diet:

- The US is 1st among developed countries in chronic disease rate and overweight & obese people (both adults & children).
- 75% of Americans are now overweight with 40% being obese! 20% of school age children are obese.
- At least 1/3rd of Americans are diabetic or pre-diabetic and 40% of adults are on statins for elevated cholesterol.
- 50% of Americans will develop atherosclerosis and 33% will die of heart disease. At least 60% have 1 chronic disease.
- Despite consuming the most dairy and calcium supplements, we have the highest osteoporosis and hip fracture rates.

The average American consumes 600 more calories a day than in 1970. Here are some other average US statistics:

- **MEAT**: The average American eats 274 lbs. per year, up from 120 lbs. in 1909 and 40% more than in 1960.
- **DAIRY** (overall): 605 lbs./year (up from 294 lbs. in 1900). In 1900, the average American only ate 3 lbs. of cheese.
- **CHEESE**: up to 38 lbs. per year. That's 5000 grams. of fat and 65,000 calories or 32 days' worth of calories.
- **FAT**: 190 gm. per day (compared with 147 gm. in 1970). Most people should shoot for under 50. Diabetics, under 25.
- **PROTEIN**: Men 102 gm., Women 70 gm., both are **double** the RDA (RDA = Recommended Daily Allowance).
- **SUGAR**: 190 lbs. per year (10 tbsp./day!). This doesn't include fruits & vegetables which are healthy even for diabetics.
- **SOFT DRINKS**: the average American drinks 53 gallons/yr.
- **SALT**: 3500mg/day. The Heart Association recommends no more than 1500mg/day.
- **WHOLE GRAINS**: less than 1 serving a day. RDA is 5 servings for adults and 7 servings for kids.
- **FIBER**: 97% do not consume the RDA of fiber (which is too low as it is) and most eat less than 1/2 of the RDA.
- **VEGETABLES**: 87% of Americans do NOT meet the RDA, which again, is too low a recommendation.
- **FRUIT**: 76 % of Americans do NOT meet the RDA.
- **FRUITS AND VEGETABLES**: We eat only 11 lbs./yr. In 1900 when the heart disease rate was 1%, we ate 140 lbs.

THE GOOD NEWS:

- 80% of deaths and 90% of chronic diseases including dementia are directly related to lifestyle choices and are avoidable!
- Losing only 1-pound results in a 4 lb. load reduction on your knees (equal to 20 tons of pressure a day off your joints).
- By dropping your weight by only 10 lbs., cholesterol levels improve by 10%, diabetes risks decrease by 60%, heart attack risk goes down by 50%, sleep apnea and blood pressure improve and cancer cases drop in the US by 73,000/yr.
- If Americans ate only 1 more serving of fruits or vegetables a day, organic or not, 40,000 cancer deaths would be prevented. If that can prevent death, think of the impact this has on reducing or eliminating all the chronic diseases.
- You CAN reduce and even eliminate the most common chronic conditions and stop medications with improved lifestyle. Diabetes, High Blood Pressure, High Cholesterol, Heart disease, Arthritis, Allergies, Depression... ALL REVERSIBLE

Some information about the environmental impact of industrial animal agriculture and ethical treatment of animals:

- Producing a single hamburger uses enough fuel to drive 20 miles and causes the loss of 5x its weight in topsoil.
- 50% of the water and 80% of agricultural land in the US is used in producing animals for food.
- 80% of antibiotics are used on food animals, mostly as a growth stimulant and to prevent infections. As a result, 35% of pork products are contaminated with MRSA (resistant bacteria) and 40% of farm workers have MRSA in their noses.
- It takes 2400 gallons of water to make 1 lb. of meat, 1000 gallons to make 1 gallon of milk, 50 gallons to produce only 1 egg BUT only 25 gallons to produce 1 lb. of wheat.
- 7 football fields of land in the Amazon are bulldozed every minute to accommodate more room for farmed animals.
- Animal agriculture accounts for at least 30% of greenhouse gases, more than all cars, trucks, ships... worldwide combined!
- Animals raised for food produce 130 times more excrement (poop) than the entire world population combined resulting in toxic gases like methane, hydrogen sulfide and ammonia, all contributing to pollution and global warming.
- Animal farms pollute waterways more than all industrial sources combined! They create ocean "dead zones" downstream.
- 90% of world edible fish stocks have already been depleted and 50% of the ocean populations overall had been killed off.
- 56 billion animals are killed yearly for food. In the US this includes 9 Billion chickens, 115 million pigs, 35 million cattle.
- 99% of these animals are raised in inhumane, unsanitary conditions on factory farms. Their lives are pretty sad. Puppy mill owners and private citizens who treat dogs this way are prosecuted and imprisoned. Why is that same judicial standard and compassion not extended to the abuse and mistreatment of other animals? Piglets are routinely killed on pig farms by smashing their heads against the concrete. Because this is considered "common agricultural practice" it does not fall under the animal cruelty laws and is not prosecutable. Compassion must extend to all animals, not just our pets.

WELLNESS & LIFESTYLE BASICS: Keys to living LONGER and BETTER

“EAT well, MOVE more, LOVE more & STRESS less” *Dean Ornish MD*

Despite being one of the richest and most developed countries in the world and despite spending the most on healthcare (over \$1 trillion), the US ranks a pathetic 42nd in life expectancy and 48th highest in chronic disease rate. Sadly, we are 1st in obesity with 40% being obese and another 34% being overweight! We spend 80% of our healthcare costs treating chronic, reversible diseases. Fortunately, 85% of these conditions are related to our lifestyle and most are treatable if not reversible, but you must act NOW. **You are NEVER too young, too old or too sick to take steps to improve your health.** The oldest Toronto Marathon finisher was 104 years old, and he didn't start running until he was 89! Even in advancing years, lifestyle changes like improving your diet and starting an exercise regimen will improve your health, quality of life and longevity. Chronic “adult” diseases start early in life. Diabetes and heart disease rates are on the rise, even in teenagers so the sooner you start, the better. In only 2 weeks you WILL improve your cholesterol and blood sugar levels, blood pressure and even mood. You can lose weight, get rid of medications and improve your health but you must put in the effort. Medications aren't a cure; they're a Band-Aid and don't fix the underlying causes of disease. Small changes over time lead to big gains at any age so go slow but just keep improving. Below are steps guaranteed to make you and our world healthier.

NUTRITION: **THIS is the MOST important health and lifestyle issue.** You ARE what you eat and drink and you can't exercise your way out of a bad diet! Poor nutrition contributes more to chronic disease and death than smoking, lack of exercise and excessive alcohol consumption COMBINED! This includes dementia, heart disease, diabetes, and cancer. What you eat has even been shown to turn on and off cancer-causing genes! You can't blame poor health on genetics. A family history of disease, including dementia, has more to do with the lifestyle and eating habits we learned from our families growing up than with the genes we inherited. Those habits can be changed. Good nutrition is not just about avoiding bad food; it's also about adding more good food. **More vegetables, fruits, whole grains, beans, nuts, seeds!** Just adding 1 serving of fruit or vegetables a day, organic or not, will make a significant improvement in your health. Just thinking about what you eat is a start in the right direction. Doing a 2-week diet diary helps to give you a better idea of what and how much you actually eat. Nutritional guidance and information, whether from a doctor, nutritionist or the internet, is confusing and often contradictory. There are many differences in opinion about what is “the best diet”. Despite these differences, there is consistent agreement about a few things like avoiding sugar, processed food, dairy and the importance of eating more quality whole foods especially lots of fresh fruits and vegetables. All diets help in the short term but only a whole-foods, plant-based diet improves your health in the long-term. Keep in mind that when you eliminate something bad from your diet like sugar or dairy you may feel worse for a few weeks because of withdrawal, just like with drugs, so be patient. Some people do have specific nutritional needs like allergies or sensitivities but below are my recommendations for most people.

SUGAR. Avoid it. Sugar is BAD. All forms (except whole fruit). It's addictive and has similar actions in the brain as heroin! It should be considered poison! Artificial sweeteners are just as bad. Insulin, a hormone produced by the pancreas, regulates how our cells use and store sugar but it also contributes to fat storage in our tissues. Processed sugar causes insulin production to spike. High insulin levels are linked to diabetes, obesity, strokes, dementia, ADD, inflammation, heart disease and cancer. Insulin does not spike the same way when complex sugars like healthy carbohydrates or whole fruits (but not fruit juice) are eaten. For example, adding berries to a meal lowers blood sugars and insulin spikes because of the added fiber and nutrients. Sugar also stimulates cancer cell growth. A test called a PET scan looks for cancer cells in the body. It is based on the fact that cancer cells feed on sugar. If you must use sweeteners, use natural ones like honey, spices like cinnamon or fruits like dates. Read labels but be aware that “sugar” has at least 54 different names on packaging!

PROCESSED FOOD. If it comes in a package, has more than 5 ingredients or if you can't pronounce an ingredient, don't eat it! These “foods” are unhealthy, cause inflammation and raise insulin levels. WHOLE food is much better. Any food altered from its natural form is considered processed. For example, whole olives have many healthful nutrients however when pressed into olive oil, all the healthy fiber and most of the nutrients are removed and all you are left with is some flavor and a whopping 14 grams of fat per tbsp. Olives are healthy to eat. Olive oil is significantly less healthy. Pastries, protein bars, refined flour, chips, crackers, cereals, soda, preserved meats, fruit snacks... avoid them.

FAT. Limit it. Fat consumption does increase cholesterol levels in the blood, clogging arteries and causing insulin resistance, resulting in high insulin levels and blood glucose. Again, high insulin levels cause excess fat storage in your organs, increase risks for cancer, heart disease, strokes and dementia and disrupt hormone function. We need essential fats but we get plenty from whole foods like vegetables, nuts & seeds. All oils are PURE FAT! Use them sparingly. Even one fatty meal stiffens artery walls for 6 hours! It's why people often have heart attacks after eating. Keep it under 30 gm/day.

FRUITS and VEGETABLES. Plants provide ALL the nutrients we need in a cleaner, more absorbable and usable form than what you get from meat and dairy. Eat as many as you can, especially greens (salads, kale, spinach...) and cruciferous vegetables (broccoli, cauliflower, brussels sprouts...). Eat colorful vegetables. Raw is best but cooked is fine. Mushrooms have toxins and should be cooked most of the time. Eat nuts and seeds. Eat whole grains (wild rice, quinoa, steel cut oats...). Pasta and bread are fine if not made with refined flour. If you eat rice, white or brown, make sure that it is not from Texas or the southern states, even if it says it's "organic". Those places have arsenic contamination from decades of heavy pesticide use. Californian and East Indian sources are better. Organic potatoes are also fine if not fried or loaded up with fat like butter and cheese. Organic is healthier but you are always better off eating the fruit or vegetable, even if it's not organic.

MEAT and ANIMAL food sources. Limit them as much as possible. This includes chicken, turkey, fish, dairy, eggs and, of course, red meat (beef and pork). They cause inflammation and studies clearly show that the fewer animal products you eat, the lower your risk for many conditions including dementia, heart disease, diabetes, autoimmune diseases, allergies, asthma, cancer and even depression. The most bone loss is in meat-eaters. Eating meat and dairy increases cancer rates almost as much as smoking does! The World Health Organization considers processed meat a Class 1 cancer causing agent, alongside smoking, asbestos and plutonium! It's a misconception that you need meat for protein or dairy for calcium. Plants provide all the nutrients our bodies need. **The longest-lived societies with the least chronic disease in the world are PLANT-BASED consuming animal products very sparingly.** The absolute longest lived, healthiest groups eat no animal products at all (see the Blue Zones reference). Going plant-based is healthier for you, more humane for the animals and is better for the environment. If you must eat meat, keep it wild-caught, grass-fed and clean but LIMIT IT. We don't need it. **Strive for 100% whole, non-processed food: If you must eat meat, eat less than 10% clean & humane animal sources.**

DAIRY. Milk, cream, cheese, yogurt, butter, whey protein... ELIMINATE it. Dairy is liquid meat. Humans are the only species on Earth that consume mothers' milk and its by-products like cheese after infancy. And it's not even our own mother's milk; it's that of another mammal! Breast milk evolved over millions of years to provide the appropriate nutrition to the infants of that species. Human milk actually has the lowest protein content of all mammals but it's what human babies need. Cow's milk is designed to grow a calf into a huge cow in a short period of time by providing more protein, hormones and growth factors. Dairy labeled "hormone-free" still contains naturally occurring hormones. When we see a big child, we jokingly say "it must be the hormones in the milk". IT IS! Before we consumed so much dairy, girls used to start menstruating at 18 years of age. Now, they can start as early as 9! Cheese is concentrated, fermented milk. It's full of fat, salt and also contains proteins that bind to the same brain receptors as morphine and heroin. It's why people become addicted to it. Even 1 serving of dairy a day increases breast and prostate cancer risks. It's linked to diabetes, dementia and even male infertility. 70% of humans are lactose intolerant (we can't digest dairy). Obviously, we were not meant to consume it.

FIBER. 97% of Americans don't get the recommended amount. Fiber is the non-absorbable part of food which has an extremely important role in overall health. Fiber is only found in whole fruits and vegetables, not in any animal products. When fruits or vegetables are blended (like in a smoothie), you break down but keep the fiber. When you juice fruits or vegetables, the fiber is removed leaving just juice with some vitamins and nutrients. Both are good in different ways. Fiber helps lower cholesterol, lowers the risk of heart disease, controls blood sugar levels, normalizes bowel movements and maintains bowel health. It helps with weight loss and prevents colorectal cancer. You can't get too much fiber.

ALCOHOL It's toxic, pro-inflammatory and causes cancer, especially breast, liver, throat and gastrointestinal cancers. It causes reflux and its breakdown product acetaldehyde disrupts sleeping patterns. Alcoholic drinks are also a big source of empty calories leading to weight gain. There may some benefits (probably mostly social), but limit consumption to 1 drink a day for women and 2 for men. Alcohol impairs judgment leading to poor food, and sometimes, behavioral choices.

WATER. 78% of us are chronically dehydrated. Water is the most important fluid to consume. Most municipal water is contaminated so filter it! Avoid plastic bottled water since chemicals leach out which disrupt hormone function and cause cancer. Use stainless steel or glass refillable bottle when possible. Carry it around and take frequent sips. Stay away from sugary beverages like soda (including diet drinks) and fruit juices. 1 can of soda a day increases heart attack rates by 20% and diabetes rates by 26%! Coffee and tea have many healthy nutrients but watch the caffeine, sugar and dairy content.

WHOLE GRAINS like oats, quinoa and barley are very healthy to eat assuming they are not overly processed. The more refined and processed they are, the worse they are for you. However, if you have an autoimmune condition or symptoms that no one can figure out, consider eliminating grains, specifically gluten-containing foods and see how you feel. Gluten can cause a leaky gut, contributing to inflammation. You'll need to do research since gluten (like dairy and soy) is added to everything. True gluten allergy and sensitivity however are rare (less than 1% and 3% of the population respectively).

SALT. Eliminate as much of it as you can from your diet. You **MUST** read labels as salt is hidden in many foods like bread. One of the biggest sources of salt in the American diet is actually cheese (another reason to avoid dairy). Salt is helpful in enhancing the taste of cooked foods, but we use too much of it. Learn to use other types of flavor enhancers like herbs and spices (turmeric, pepper, garlic, thyme, rosemary, basil, cumin...). Your taste buds won't take long to get used to less salt and your arteries and blood pressure will thank you for it. When eating out, assume that what you order is loaded with salt, fat and sugar. If you must cook with salt, add it near the end. It won't build up and you'll still get the taste enhancement.

GENETICALLY MODIFIED ORGANISMS (GMOs). Avoid them. Many crops like corn, soy and canola oil are usually genetically modified which means that they have been genetically manipulated to exploit some characteristic like faster growth or herbicide resistance. This is often done by mixing genes of completely unrelated species which is different and more dangerous than traditional crossbreeding of animals and plants. The biggest concern with GMOs is that because they are made chemical-resistant, more chemicals are used on them making them super contaminated and very unhealthy. It's not clear how unhealthy the actual genetic manipulations are, but there is no question of their devastating effect on the environment from pesticide overuse (it can be measured in the rain!) and cross contamination of clean farms and crops.

THE GUT MICROBIOME. Your gastrointestinal tract contains 10x more cells (over 100 trillion) than all the rest of your cells combined! These cells consist mostly of microbes. In a healthy gut there are 1000's of varieties of microbes, the majority of which are bacteria but they also include viruses and fungi, like candida. They do a lot more than just digest food. The gut is called "the second brain" producing 75% of the neurotransmitters in our bodies including 80-90 % of the serotonin, which regulates our mood. It's also estimated that 70% of our immune function occurs in the gut. The balance between the gut microbes is dramatically impacted by the foods we eat and medications we take. One course of antibiotics kills 1/3rd of your healthy bacteria, which then affects proper immune function and nutrient absorption. Healthy gut bacteria thrive on FIBER which is why it's an important part of our diet. Eating sugar, meat and dairy adversely changes the balance of gut microbes allowing unhealthy ones to overgrow. Whole fruits and vegetables, including "live" foods like fermented and pickled foods also promote the growth of healthy bacteria. These foods are called "pre-biotics". Although these foods help, it's better to keep your gut healthy to begin with. Probiotic supplements are for the most part useless.

COOK DINNER AT HOME AND EAT TOGETHER. This simple act makes you appreciate food more since you prepare it yourself. It also allows you to control what goes into your food like less salt, fat, sugar and chemicals. Sharing a meal is also an important opportunity to spend time with family and friends and is beneficial physically and emotionally.

EAT LESS, EAT LESS OFTEN & EAT SLOWLY. We simply eat too much. Portion control is critical. We eat what we see so it helps to put less food on your plate and don't take seconds. Dinner plate sizes have increased by 30% in the last 40 years so it's easy to overfill your plate! Caloric restriction (eating less), occasional fasting and time-restricted eating (eating all your food within an 8-12-hour window) have been shown to decrease chronic disease and extend life. Skipping meals occasionally is fine but avoid skipping breakfast. Our ancestors would go days without eating and they certainly didn't eat 3 square meals a day. Because we eat so much and so often, we have forgotten what real hunger feels like. Our eating patterns are not based on nutritional needs, but on habits and emotions. Chew your food. Digestion starts in the mouth. By consciously spending more time chewing, you improve nutrient breakdown and absorption and slow down eating which allows the stomach to fill at a rate that allows your brain to respond to the feeling of being full (which takes 20 minutes). When you eat too fast, you overeat, don't appreciate your food as much and spend less time with family and friends.

PLASTICS. Avoid them. Plastic containers pollute and leach chemicals, especially when warmed, heated or re-used. These chemicals disrupt hormone function and cause inflammation and cancer. Storing dry foods may be ok if the containers are BPA-free and not kept in warm areas, however glass or stainless steel are better options. **NEVER** cook or microwave in plastic and don't let plastic wrap contact food while it's cooking or heating. Try out reusable silicone covers. Limit drinking all beverages from plastic bottles, especially if the bottles have been warmed up. Keep in mind that most plastic bottles you buy have been stored in hot storage and shipping containers during transport! These bottles are unhealthy and wasteful. Use refillable glass or stainless-steel bottles. Limit canned goods and opt for glass containers or better yet, buy fresh foods. Most cans (even BPA-free) are still lined with plastics (like BPS) that leach into the foods, especially acidic foods like tomatoes.

**Strive for 100% whole, non-processed food; 90% Plant Based and 10% or less clean and humane animal sources.
The more you change, the more you improve. "Everything in Moderation" results in moderate improvement.
Daily dietary and lifestyle choices impact your health as well as the health of the planet and the animals.**

COMMON QUESTIONS PEOPLE ASK ABOUT PLANT-BASED DIETS

#1 QUESTION: Where do you get your protein from? FROM THE PLANTS! If you eat a variety of fruits, vegetables, legumes...you don't need to worry about protein! Protein is made up of amino acids which the body uses as building blocks. Amino acids are identical whether they come from plants or animal sources. However, plant protein is better absorbed, more easily metabolized and has fewer waste products than protein from animal sources. Plant protein is less taxing on the kidneys than animal protein. Plant protein comes packed with various other healthful substances like vitamins, micronutrients and fiber which is essential for good gut health and slows blood sugar and insulin spikes. Animal protein comes packaged with fat, hormones, salt, bacteria and chemicals and also has no fiber and minimal vitamins or minerals. In addition, we need much less protein than what we think or is recommended. Protein deficiency doesn't exist in this country.

Don't you need dairy for calcium to keep bones healthy? Yes, you need calcium but you get plenty of it from plants. That's where the cows get it from after all. Cows don't make calcium. Calcium from plant sources is also better absorbed than from dairy. Excess animal protein consumption is actually linked to greater calcium depletion and osteoporosis. Children who don't consume dairy have the same bone strength and growth as those who do. Studies show that women who consume dairy actually have higher rates of osteoporosis and fractures than those who don't. Dairy raises breast and prostate cancer risk and is linked to male infertility. Childhood dairy consumption is linked to type 1 diabetes and iron deficiency anemia.

Aren't chicken and fish healthy alternatives to red meat? NO. Chicken is NOT as healthy as we have been led to believe. It is actually the highest meat source of cholesterol, fat and salt in the American diet. The way chickens are processed, virtually all are contaminated with Salmonella, E. Coli and many viruses. Fish are also not as healthy as you think. Although some fish like salmon have higher levels of Omega 3 fatty acids which are healthy, 70% of the calories are fat, mostly saturated fat. ALL fish are contaminated with mercury and other environmental pollutants. Farmed fish are worse, treated with antibiotics and raised in unsanitary and stressful conditions. Eating fish regularly is linked to many chronic diseases.

If I can't have meat or dairy, what will I eat! There is PLENTY to eat. You will find considerable variety in the produce sections of the grocery store. It just takes some effort to explore. Once you start, you will realize how many different plant-based foods there are. Varieties of fruits, vegetables, nuts, seeds, legumes, whole grains... Taking a cooking class also helps with learning how to eat plant-based. Forks Over Knives is a great resource for this. They have a great recipe phone app.

I know a vegan who is overweight and does not look healthy. Coke, Oreos and Potato Chips are vegan. You can eat a lot of processed "vegan" foods and be very unhealthy. Being plant based is not by definition healthy. You still have to be mindful of the sugars, fats and processed foods that are out there. Stick to whole, unprocessed food especially lots of different fruits, vegetables, legumes, nuts and seeds and I guarantee you will lose weight, feel better and be healthier.

What do I do when eating out? Eating out can be challenging. Assume it's full of salt, sugar and fat. There are more and more restaurants offering vegetarian and vegan options. Most restaurants will gladly alter meals to make them meat or dairy free. Don't be afraid to ask. An app called "Happy Cow" is great at finding vegan and vegetarian restaurants in your area.

Do I have to eliminate all animal products from my diet? The simple answer to that is it depends on your health. There is no question that the less dairy and animal products you eat, the healthier you will be and the faster you will become healthier. That having been said, from a health perspective, a small amount of animal products is probably not going to be harmful but you must keep it to less than 10% of calories consumed. The longest-lived societies around the world eat this way, consuming meat sparingly. Strict vegans (no animal products at all) still live the longest with the least chronic diseases.

What about Paleo or Ketogenic diets (low carb, high protein and fat)? There are some things that are good about these diets initially like weight loss and improved blood sugars and cholesterol levels. However, long term studies reveal gradually worsening health measures in most people following such diets. **The Good:** They get people thinking about what they eat. Food quality and portion sizes go a long way. They promote limiting sugar, processed foods and unhealthy carbs; known sources of inflammation. They encourage consuming some whole fruits and vegetables. **The Bad:** They encourage too much fat and protein consumption, mostly from animal sources. We simply don't need so much protein and fat. Our bodies can only process 25 mg of protein at a time as it is. The excess must be processed and excreted. Animal protein sources are also loaded with saturated fat, drugs and environmental pollutants. These diets also limit consumption of other healthy grains, fruits, vegetables and legumes. They give the false impression of better insulin sensitivity and diabetes control. If you don't eat any carbs, of course blood glucose will improve but that is not natural or sustainable long-term.

Isn't fat necessary to be healthy? Where do you get your FAT from? Again, the answer is: THE PLANTS. Even a leaf of spinach has fat in it! (Spinach, by the way, is 60% protein). However, just like with protein, we eat more fat than we need and we can get more than enough good fats from plants like nuts, seeds, grains, legumes and avocados. We need to cut down on oils. Even the "healthful" oils like olive and avocado oil have little nutritional value and they contain 14 grams of fat per tbsp! It's a myth that we need these oils for healthy brain function. They contribute to dementia, not prevent it.

I heard that Soy causes breast cancer? It does not. Soy is actually protective against breast cancer and is linked with less recurrence. It also helps to prevent heart disease, osteoporosis, and improves cognitive function. However, some people are allergic to soy and you should always avoid non-organic soy which is used in many processed foods and is full of pesticides.

Aren't "carbs" bad? Don't they make you fat? Yes, and no. Processed carbohydrates (sugars and refined carbohydrates like processed and packaged foods, pastries, chips, snacks, white bread and refined pasta...) are not healthy, will contribute to weight gain and should be avoided. Good carbohydrates like whole fruit, whole grains, sprouted breads, beans, legumes and all other vegetables are healthy. For those with diabetes and obesity, healthy carbohydrates are not the enemy, fat and animal protein are since they contribute to insulin resistance. In fact, the more of the healthy carbs you eat, the lower the risk of developing type 2 diabetes. For example, simply by adding berries to a meal, blood sugar and insulin levels decrease. In other words, it's not the potato that makes you fat, it's the added butter, cheese and accompanying meat that does.

Didn't Humans evolve eating meat? How we evolved is a complex question with different theories. There is no question that we have always eaten meat (primarily organ meats), but how much and how often did we eat it is up for debate. The answer likely has to do with the environment we lived in and what was available for survival. In most environments, plants were easier to gather so it makes sense that we ate mostly plants. Also, our anatomy and physiology (dental shape, intestinal tract length, gut bacteria...) is similar to that of other plant-eaters in the animal kingdom, like all primates. We have color vision, thought to have evolved to see colorful vegetables and fruit better. Most meat eaters see only black and white. Also, the meat that our ancestors ate was not fattened, factory-farmed or filled with hormones, drugs and environmental pollutants.

Don't greens affect thyroid function? Basically, no. Although some greens like kale and spinach contain thyroid stimulating compounds (goitrogens), you have to eat a ton of it raw for there to be any measurable effect. In addition, those compounds are destroyed by cooking anyway so if you're still worried, don't overdo it and lightly cook or boil them.

OTHER LIFESTYLE HABITS WHICH PROMOTE HEALTH AND LONGEVITY

EXERCISE. We simply don't move enough! Sedentary people have a 112% increased risk of diabetes and a 90% increase risk of fatal heart disease. After 30, inactive people lose 1% of their muscle mass yearly (~15 lbs./yr.). Daily exercise (mostly resistance like weights but also cardio) is VITAL, especially for bone health, but what you do all day long is more important. A sedentary lifestyle is as bad to your overall health as smoking! MOVE your body as much as possible. Go outside. At work, use a stand-up desk (Varidesk) or "core" chair. Take walking breaks. Use the stairs. Any opportunity to move your body is good. Watches and smartphones can remind us to move. Short bursts of High Intensity Interval Training (HIIT) is just as effective as longer cardio exercises so you can't use lack of time as an excuse! All you need is 20-30 minutes a day.

SLEEP. Sleep is CRUCIAL. Sleep CLEANS the brain. Many other restorative functions occur during different stages of sleep all of which are important. Even one night of sleep deprivation will impact on brain function, immunity and has been linked with increased dementia risk. On average, 99% of people need between 7-8 hours. If you think you can function on less, you are fooling yourself. Aim for 7-9 undisturbed hours every night. Quality of sleep is as important if not more important than quantity. Avoid looking at ANY screen (TV, Kindle, iPad, Phone...) for at least 1 hour before going to bed. Even a brief look at email, weather apps or your alarm on your cell phone will disrupt your sleep patterns. Reading a paper book is OK. Keep the bedroom for sleeping. Keep it dark, cool (65-68 degrees) and quiet. Avoid all caffeine for at least 12 hours before going to sleep. Caffeine clears the body very slowly, disrupts sleep cycles and causes reflux. It may not prevent you from falling asleep but it will affect sleep quality. Alcohol, even a bit, also impacts on sleep quality. Don't eat or exercise within 2-3 hours of sleep. Both affect sleep quality. Napping is OK but a good night's sleep is most important.

STRESS and PMA (Positive Mental Attitude). Stress has a huge impact on health and longevity. When we are acutely stressed, the adrenal gland produces the stress hormone cortisol. Amongst other effects, cortisol signals the body to store energy as fat. Chronic stress causes continuous cortisol production resulting in excess energy storage leading to weight gain. Chronically elevated cortisol levels suppress the production of the brain neuropeptide serotonin, responsible for mood, resulting in depression. To be alive is to be stressed but there is too much additional societal and self-imposed stress. It is up to us how we deal with and react to stress. Exercise, yoga, meditation, mindfulness and breathing practices help a lot.

SOCIALIZE. People who actively maintain relationships with family and friends live longer and are happier. Isolation and depression triple the rate of premature death from all causes. Cancer patients with a support system have longer survival and higher cure rates than those who don't. Caring for another person or animal is therapeutic. Join a club. Practice religion. Volunteer. Visit with family and friends often. It is also important to take care of our elders. It may seem like a burden, but the societies who live the longest (Blue Zones) revere and respect their elders and keep them involved in day to day life.

TAKE CARE OF YOUR TEETH AND GUMS. Bad teeth and gums cause inflammation which is linked to cancer, heart disease and dementia. Floss and brush twice a day! Visit the dentist regularly for cleanings (just avoid all the X Rays). Do NOT use mouthwashes. They kill the healthy bacteria in your mouth that start the digestive process and they adversely impact on the gut microbiome. Mouthwash use has also been linked to an increased risk of diabetes and heart disease.

MEDICATIONS. Medicines are sometimes necessary for infections or major medical issues initially however we are impatient and too reliant on them. Diabetes medications lower blood sugar but have not been shown to decrease long term complications or increase lifespan. Antibiotics and antacids impact on the balance of gut bacteria and affect nutrient absorption. Most infections clear themselves without treatment. Anti-depressants, Anti-Anxiety and ADD medications are addictive, overprescribed and mask the underlying causes of these conditions. Blood pressure medications have a slew of side effects. Anti-inflammatories impact on immune function, decrease cancer cell surveillance and promote infections. Medications are Band-Aids, not fixes. Improve your lifestyle, treat the disease (not just the symptoms) and you won't need medications. Diabetes, Coronary Artery Disease, Hypertension, High Cholesterol, Arthritis... All curable without meds!

TOXINS. We are constantly bombarded with chemical, radiation and electronic toxins. Limit exposure to chemicals and unnecessary sources of toxic exposure like cleaning products, scented soaps and sprays, metals in fish, smog, perfumes and antiperspirants. Also, there are over 10,000 chemicals added to our foods, another reason to keep foods whole and plant-based. No plastic bottles! Limit tests like CTs or X-Rays. Although not definitively proven to be bad, limit cellphone use.

TOBACCO ABUSE. Tobacco (all forms including chewing) decreases blood flow in ALL blood vessels to ALL organs. Although many of the bad effects of smoking are dose-dependent (i.e. the more you smoke, the greater the risks) some effects are not. Even ONE cigarette a day or passive smoke exposure can cause big problems with blood vessel endothelial function and circulation. ALL organs age faster when you use tobacco. Even hearing loss progresses faster in smokers! Tobacco impacts on nasal and lung function, decreasing mucus clearance contributing to infections. Also, note that the average cigar has the same amount of disease and cancer-causing chemicals as 1 whole pack of cigarettes! Even if you don't inhale, chemicals dissolve in your saliva, coat all surfaces and get absorbed in your bloodstream. Within 72 hours of quitting smoking, the following positive changes occur: blood pressure and pulse normalize, circulation improves, CO2 and O2 levels normalize, heart attack risk decreases, nerve endings start re-growing, taste and smell improve, bronchial tubes relax making breathing easier and lung capacity increases. **It doesn't take long for the body to start healing itself!**

SUN EXPOSURE. It's important to avoid overexposure to the sun and sunburns but, because of our lack of sun exposure and our sedentary indoor lifestyle, most people (70% of adults) are Vitamin D deficient. It takes 20 minutes of unprotected sun to start to burn but that is also all you need to make enough Vit. D for a week (assuming you don't wash it off). Supplements are OK but natural production is better. Keep in mind that with full cloud cover, you still get 60% sun transmission. SPF of 30 blocks 95% of UVA/B so anything stronger is overkill. Remember that you must re-apply every 2 hours regardless of SPF strength! Use non-toxic, organic or natural sunscreens like Zinc Oxide. Most other SPF chemicals have actually been shown to increase cancer rates. They also pollute the oceans, destroy barrier reefs and kill sea animals.

INSULIN RESISTANCE (IR) – Not just a diabetic issue. Insulin is a hormone made by the pancreas. Its main job is to escort sugar in your blood into cells where it is used or stored as energy. A secondary role is to assist in storing fat. When insulin is no longer made by the pancreas (type 1 Diabetes) or doesn't work well (type 2), sugar levels rise in the blood. In both types of diabetes, insulin resistance is an important issue. IR affects at least 30% of adults and is caused by excess fat in the diet and fat stored in the body. Fat is like glue clogging up the lock which insulin, the key, fits into allowing the sugar to enter the cells. The less fat in your body and diet, the more efficiently your insulin works. Even one fatty meal impacts on insulin sensitivity. Eating processed foods and lack of exercise also decrease insulin sensitivity. The more plant-based your diet is, the better your insulin works. Consuming animal products (meat, fish, dairy and eggs) is linked to developing diabetes. Insulin resistance also contributes to weight gain, heart disease, cancer, hormonal disruption and many other diseases, even if you don't have diabetes! Just because your bloodwork is good doesn't mean insulin is working well.

DEMENTIA and ALZHEIMER'S DISEASE – A Growing Epidemic: Dementia is now the 6th leading cause of death in the US (which is probably an underestimation) and its incidence is on a rapid rise (400% projected increase in next 10-20 years). Although most chronic diseases are reversible, dementia is much harder to reverse once it sets in. However, much can be done about preventing, delaying and slowing progression of all forms of dementia. Sadly, the brain damage leading to dementia starts 20 or more years before symptoms even develop so NOW is the time to take action. All the above-mentioned lifestyle changes are proven to be helpful in preventing, delaying and slowing progression of dementia, even in people who have a genetic predisposition to getting it. Most importantly again is nutrition including limiting or eliminating animal products (meat, fish, dairy and eggs), sugar and processed foods, all sources of inflammation in the brain. Adding lots of colorful fruit and vegetables, especially berries is very helpful. Vigorous exercise, staying mentally and socially engaged and proper sleep are also extremely important. In addition, hearing loss contributes to dementia because of lack of brain stimulation and social isolation so get tested and get hearing aids if you have trouble hearing.