



Health SCIENCE®

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**INTERVIEW WITH
DEAN ORNISH, MD**

**THE NHA'S HISTORY
AND EVOLUTION**

Frank Sabatino, DC, PhD

MEN'S HEALTH CONCERNS

Frank Sabatino, DC, PhD

**KITCHEN TIPS
FROM THE NHA PROS**

SPROUTING 101

Susan Smith Jones and Katharine Evans

Welcome to the Spring Issue!

Spring is always my favorite time of the year here in northeastern Ohio, since it marks the start of another growing season and I get to plant my bare feet in my most special place—my very own organic garden! It also means that the annual NHA Conference is just around the corner, where Wanda and I know we will get to spend a wonderful, energizing, inspiring, and educational weekend with so many members of the NHA. We truly can't wait!

In the meantime, we have another wonderful magazine in store. We begin with this issue's feature **Interview with Dr. Dean Ornish**. He proved a joy to speak with, and I came away amazed at how much kinship he shares with the visionary founders of the NHA like the late Drs. Herbert Shelton, William Esser, and Gerald Benesh. After reading about his work, I think you will agree with me that his many published studies on the amazing power of the lifestyle medicine that we preach have given our health movement extraordinary credibility. In many impressive ways, he is truly the "Dean"!

Those of you who are long-standing members of the NHA know that **Dr. Frank Sabatino** is an incredibly thoughtful and gifted writer, and the wisdom he is consistently able to impart on almost any subject is truly exceptional. With this issue, we are excited to announce that Dr. Sabatino is taking on an expanded position for the NHA as our new **Director of Health Education**. In this important role, he not only will be continuing to present in-depth articles for this publication, like his current article, "**Men's Health Concerns**," but he will also be authoring a series of articles called "**Health Science Insights**" on a broad range of subjects targeted for NHA members only. The first of these is published in this issue, an important foundational lesson entitled "**The NHA's History and Evolution**." Dr. Sabatino will also be the host of the forthcoming *The Health Science Podcast*, which will increase the NHA's voice in the exploding world of social media. Adding Dr. Sabatino to our staff is a truly fortunate advance for our organization!

As most of you know, *Health Science* has always been consciously much more than a recipe magazine, but food has certainly always been an important focus, and in this issue, it is getting triple treatment. First, we have compiled a boatload of "**Kitchen Tips from the NHA Pros**" that we know you will want to adopt in your own home. Second, we are pleased to welcome back prolific author and NHA Life Member **Susan Smith Jones** who teams with our colleague **Katherine Evans** to make the art of sprouting a breeze in their article "**Sprouting 101**." Third, our **Recipe Department** is placed in the capable and creative hands of bestselling author, **Felicia Slattery**, who presents more amazing SOS-free dishes, including a delectable dessert!

As mentioned in prior issues, the NHA considers one of its educational missions to be introducing our members and readers to impressive new physicians whose personal journeys and medical practices are making a difference in this world. In this issue's **Physician Spotlight**, we focus on **Asha Subramanian, MD**, whose personal story and work are certain to inspire.

Our readers perennially tell us that two of the special features that help make this magazine the one publication they read from "cover to cover" are the warm and inspiring Member Spotlights and Testimonials we are proud to share. In this issue, we continue that rich tradition with the wonderful **Member Spotlight** of **Tim and Cathy Brown** and the impressive **Testimonial** by **Rachel Echols**, who is truly "**A Whole New Person**."

In closing, I want to once again welcome the extraordinary number of new Basic, Century, and Life Members who have joined the NHA just since January. I look forward to seeing so many of them—and you!—this June at the upcoming NHA Conference in Cleveland.



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AN INTERVIEW WITH DEAN ORNISH, MD

Mark Huberman interviews Dr. Dean Ornish, who shares the story behind his lifelong dedication to his work on how to live the healthiest life possible, including his early years, his research, his books, and his pioneering program to reverse heart disease.

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MEN'S HEALTH CONCERNS

Frank Sabatino, DC, PhD, addresses prostate health and erectile dysfunction, providing information and options that all men (and those who love them) should know.

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KITCHEN TIPS FROM THE NHA PROS

NHA's own staff and *Health Science* contributors have shared with us their very best kitchen tips, compiled here to enhance your cooking techniques and get the most from your equipment.

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SPROUTING 101

Interested in a simple way to provide nutritious sprouts for your salads and other meals? Susan Smith Jones and Katharine Evans provide the reasons you should be and the simple method for growing them in your own kitchen.

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PHYSICIAN SPOTLIGHT: PERSONAL BENEFITS, PATIENT SUCCESSES

Asha Subramanian, MD, relates her personal story of endometriosis, how it affected her early life, what she employed to mitigate it, and how she now shares the lessons learned with others.

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Mark and Wanda,

I'm so grateful for all the hard work you do for this amazing organization. Thank you so much for allowing me to share my story (Testimonial, Winter 2022). Hopefully, it will help someone change their health for the better...and it's really cool to see yourself in print as well as read the nice comments in your greeting! The interview with Dr. Gershfeld was skillfully done. It's apparent that you took the time to carefully research him and ask great questions, and it flowed well.

I really like the new look of the magazine. It's contemporary, organized, colorful, and contains remarkable articles and very helpful information! Can't wait to see you again at the conference in June.

Shelley Watts
Harrisburg, PA

Dear Mark, Wanda, and team,
Your winter interview about Nathan Gershfeld's journey reiterates all the positive choices we can make in our lives. May he flourish!

Chestnut and Mushroom Roast—Elspeth Feldman, thanks so much! See you at the conference in June!

Nancy Sauer
Sandy Springs, GA

Dear Mark,
The Winter magazine does not disappoint—full of great articles and delicious-looking recipes! We are currently in The Villages of central Florida visiting family. As we sit around the public pool—people-watching, of course—we are seeing such a huge need for plant-based nutrition. In this highly congested area, there are next to no healthy eating options, and despite lots of outdoor recreational opportunities, the majority of people are obese and the negative environmental footprint is vast. Our wheels are always spinning, as it's hard to not notice these things now. We are proud to be members of your organization!

MaryEllen Bunce
The Villages, Florida



Hi Mark,

I just received the *Health Science* magazine that you sent and quickly read it cover to cover. I liked the mission statement and learned some new information about garlic. I also scrutinized the recipe ingredients and gave them a thumbs up. I'm going to try the Charred Cannellini Cauliflower with Chimichurri—it looks delicious!

Your work is exceptional. I know what I am going to do with the magazine: I am going to display it in my office so all my staff can see it, and this will give me a chance, hopefully, to share advice with my staff and visitors on healthier ways to live. I think the magazine will be a good vehicle to spread the message or at least another tool for those who are open to change.

Mark Jones
Riverside, CA

Hi Mark,

Thank you also for sending me the print version of *Health Science*. I am very happy to be a part of the NHA now, and I am looking forward to learning more about this lifestyle. I already started to read a bit in the history magazines—very informative, I can learn a lot from them. Thank you for making them available! With this way of nutrition, lifestyle, and nature spirituality, I try to work on my health problems (diabetes, high blood pressure, overweight, allergies, etc.). I look forward to improving my health step by step. Thank you for being a part of my journey through this beautiful organisation. Please excuse me if my English is not really good, it's not my mother language, and I do not use it very often. Thank you again and many greetings from Germany.

Jan Oelrich
Bergisch Gladbach, Germany

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OUR MISSION

The mission of the National Health Association is to educate and empower individuals to understand that health results from healthful living. We recognize the integration of all aspects of health: personal, environmental, and social.

We communicate the benefits of an exclusively whole-plant-food diet that is minimally processed and without added salt, oil, and sugar, plus exercise and rest, a healthy environment, psychological well-being, and, when indicated, the use of professionally supervised water-only fasting. We take a leadership role in advocating health freedom issues.

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Interview with Dean Ornish, MD

by Mark Huberman



DEAN ORNISH, M.D., is the founder and president of the nonprofit Preventive Medicine Research Institute and Clinical Professor of Medicine at UC-SF. For over 44 years, Dr. Ornish has directed randomized trials demonstrating for the first time that comprehensive lifestyle changes (1) may begin to reverse even severe coronary heart disease without drugs or surgery; (2) may slow, stop, or reverse the progression of early-stage prostate cancer; and (3) may affect gene expression, “turning on” disease-preventing genes and “turning off” genes that promote cancer and heart disease. In collaboration with Nobel Prize winner Dr. Elizabeth Blackburn, he has shown that these lifestyle changes may begin to reverse aging on a cellular level. He is a #1 *New York Times* bestselling author of seven national bestsellers, including his most recent book, *UnDo It!* He’s received many awards, including UC-Berkeley’s National Public Health Hero award and the inaugural Lifetime Achievement Award from the American College of Lifestyle Medicine. He has been recognized as “one of the 125 most extraordinary University of Texas alumni in the past 125 years;” by *TIME* as a “*TIME* 100 Innovator;” by *LIFE* as “one of the 50 most influential members of his generation;” by *People* as “one of the most interesting people of the year;” and by *Forbes* as “one of the world’s seven most powerful teachers.”

MH My late great father used to say that “Most people don’t worry about their health until they’ve lost it.” By that he meant that many people had a personal health crisis that prompted them to turn towards a plant-based lifestyle. Was that the case with you, or was there something else in your background that sparked your interest?

DO Well, perhaps the earliest influence came from my father. He was a pretty thoughtful dentist who instilled in me early-on the principle of preventive medicine. He could never understand why people would say, “It doesn’t matter if my teeth fall out, I’ll just get false teeth.” He always stressed the importance of prevention, and dentists were always way ahead of doctors where that is concerned.

But my own interest in health really came to a head when I was 19. It was January, 1973; I was in my second year of college at Rice University in Houston and found myself depressed to the point of being suicidal. I had the classic imposter syndrome. I considered my place in the midst of a bunch of really smart kids and thought that it was just a matter of time until they figured out what a big mistake they’d made in letting me in. To make matters worse, I had a spiritual vision, which was more than I could handle at the time, that nothing could bring lasting happiness, that I was never going to amount to anything, and that even if I did, it wouldn’t matter anyway. I got to the point that I thought, “Well, you know, dead people look like they’re peaceful. Maybe I’ll just kill myself. What’s the point?”

MH Wow!

DO It really was a rough time. I was able to take all the meaning out of life. “Who cares, nothing matters. So what, big deal. Why bother?” and all of that. And I got to the point where I was so agitated that I literally couldn’t sleep for a week straight, which is enough to make anyone crazy. My only saving grace was that I ran myself so ragged that I came down with a really bad case of infectious mononucleosis and didn’t even have the strength to get out of bed. My parents got word that I was doing poorly, saw what a wreck I was, and brought me home to Dallas to recuperate. But the truth was, my secret plan was to get strong enough to kill myself.

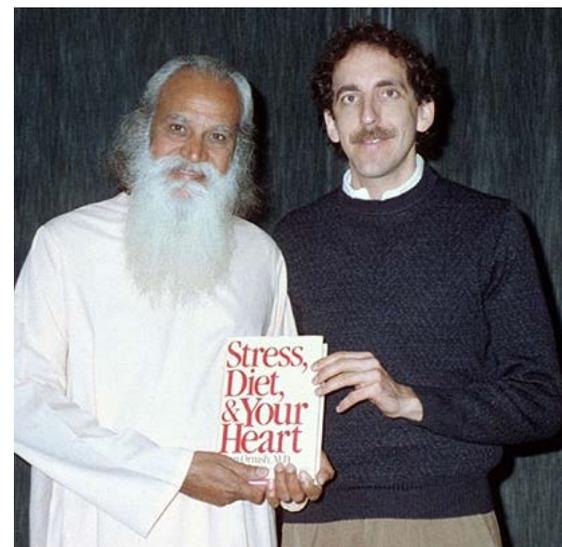
There’s an old saying, “When the student is ready, the teacher appears.” And that was certainly true for me.

MH I am anxious to hear some good news in all this!

DO Fortunately, there is. My older sister had been a child of the ’60s and had benefited from studying with an ecumenical spiritual teacher named Swami Satchidananda. So when the Swami came to Dallas to give a lecture, my parents decided to have a cocktail party in his honor, which was kind of weird back then. I suppose that’d be weird in today’s Dallas, but it was especially weird back in 1973.

MH I think a lot of our readers would agree with you about that!

DO There’s an old saying, “When the student is ready, the teacher appears.” And that was certainly true for me. So, in walks central casting’s idea of what a swami should look like—you know, the long, white beard and saffron robes and the whole thing. He gave a lecture in our living room and began by saying, “Nothing can bring you lasting happiness,” which I’d already figured out. But there he was glowing and looking really happy and peaceful, and I was ready to do myself in. I’m going, “What am I missing here?” And he went on to say what may sound like a New Age cliché to some people but really turned my life around, which is that the bad news is that nothing can bring you lasting happiness, but the good news is that we have that already until we disturb it. It’s our nature to be happy and peaceful most of the time, and we need to be mindful of that.



He pointed out that perhaps the greatest irony of life is that we end up running after things with this mistaken notion that if only we had more money, more power, more sex, more beauty, more accomplishment, then we'd be happy, people would love us, and we wouldn't feel so lonely and depressed. But the Swami taught me that no matter how things turn out, we generally feel bad, because until we get whatever it is that we think we need more of, we feel stressed. Even if you get a moment of positive feelings, it doesn't last. It's soon followed by "Now what?" It's never enough. Or "So what?" It doesn't provide lasting meaning in our lives.

What the Swami taught me instead is that real peace and satisfaction can be found by employing techniques that we now call stress management—stretching, breathing, and meditation—which were actually developed by the ancient swamis, rabbis, priests, and spiritual teachers of all faiths—not to unclog our arteries, lower our blood pressure, and allow us to perform better in sports or in school or in the boardroom, although they can help do all of these. They are also really powerful tools for transforming our lives, for quieting down our minds and body enough to experience more of an inner sense of peace and joy and well-being. For example, at the end of a meditation, you're feeling more peaceful and are able to literally re-mind yourself that the meditation didn't bring you that sense of peace, but rather it's always there. What meditation did was at least temporarily reduce the number of things that we're doing to disturb that peace.

That may sound like I am parsing words, but the implications are really quite profound. The point is that if we think that our peace, health, and well-being are what we have to get from outside ourselves, then everyone who has what we think we need has power over us. But if the question shifts from "How can I get what I think I need to be happy and healthy?" to "How can I stop disturbing what's already there?," then that's really empowering—not to blame, but to empower, because I can do something about that. And then the question shifts to "What am I doing to disturb my own inner sense of peace and joy and well-being and health?" rather than "How can I get something external to myself?"

MH So your meeting the Swami provided that light-bulb moment for you?

DO It did, and so I decided that I'd move "kill myself" down to Plan B, and instead I'd try

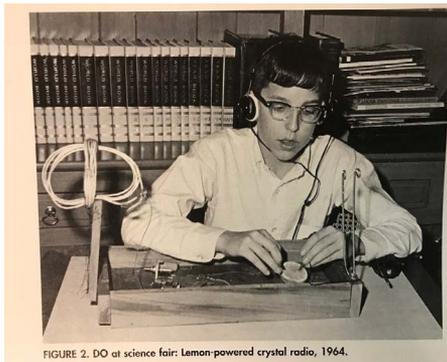


FIGURE 2. DO at science fair: Lemon-powered crystal radio, 1964.

this weird stuff. And, you know, having grown up in Texas, eating meat three or four or five times a day, chili and cheeseburgers and not meditating and not really exercising all that much and being very lonely and isolated, I thought, "Let me try these things." I went on a plant-based diet and began to meditate to the degree I could.

MH Where did the component of a plant-based diet come into all this? I understand the Swami talking about meditation and reflection and attitude towards life, but what about food? Was there a vegetarian or vegan in your family or among your friends?

DO That also came from the Swami. It was all part of his program; my entire life's work really originated from him. It was his teachings that led me to eat a whole-food vegetarian diet, to manage stress by doing meditation and yoga-based stretching and breathing exercises, and to learn how to have more compassion for myself so I could then learn to have more compassion for other people as well.

[Bypass surgery became a metaphor for an incomplete approach to healthcare, where we were literally bypassing the problems and not addressing the cause.](#)

MH Would it be correct that by the time you went to Baylor College of Medicine, you were already on the whole-food, plant-based path and it was the lens through which you were seeing the world?

DO Yes. I became a vegetarian that day at age 19 when I met the Swami, and I have continued it until now. It became my life's work, and the more I began to do it, the more I began to get glimpses of what it meant to feel peaceful, and again, to remind myself when I was feeling more peaceful that I was not feeling that way because I got something that I thought I needed. I initially thought I

had to go to medical school to be a doctor and so on, and the more I worried about that obligation, the harder it became to study, and the harder it became to study, the more I worried. But, when I learned to quiet down my mind and body and began to experience an inner sense of peace and well-being, the less I needed to succeed to feel good about myself. The paradox was I was able to go back to school, study very well, graduate first in my class, and give the baccalaureate address. I transferred to University of Texas at Austin, and then went to medical school. I experienced both ends of that spectrum—when I felt like I had to succeed, I couldn't even function, but the more inwardly-defined I became, the less I needed to succeed, so I had so much less stress and anxiety and the more successful I became.

MH Were there any particular medical school teachers who helped further shape your thinking?

DO There was one in particular. I had the good fortune to learn bypass surgery with Dr. Michael DeBakey, one of the pioneers who invented bypass surgery. When he and I cut people open and bypassed their clogged arteries, he would tell them they were cured, and mostly, they'd go home and do all the things that had caused the problem in the first place. They'd eat junk food, they'd smoke cigarettes, they wouldn't manage stress well, they were sedentary, lonely, and isolated. As a result, more often than not, their new clean bypass grafts would clog up, and we would cut them open again and have to bypass the bypass, sometimes multiple times. He also gave me a really hard time when I was his student. He asked, "What year are you in?" and I told him, "My third year." And he said, "Damn. It will be so much harder to bust you out of school now that you've started your third year." He was really a tyrant, old-school. He'd stick your fingers if you didn't move them out of the operating field fast enough.

By the way, he called me about 13 years ago and said, "Hey Dean, this is Mike DeBakey." I hadn't heard from him in decades, but I recognized his voice immediately. I said to him, "To what do I owe this honor?" He said, "Well, you know those weird ideas that I used to give you such a hard time about when you were my medical student?" I said, "Oh, yes, I remember very well." And he said, "That's what's kept me alive all these years!" He added, "I'm 99 years old, and I just wanted you to know that. My wife got interested in what you're doing

and convinced me to change some of my ways, so I wanted to thank you before I die.” I guess if you live long enough, you never know what’s going to happen!

MH How did the lessons you learned from Dr. DeBakey influence your work?

For me, bypass surgery became a metaphor for an incomplete approach to healthcare, where we were literally bypassing the problems and not also addressing the causes. One of the many things I learned from the Swami was to treat the cause of the problem, and when we treat the cause—in this case, our diet and lifestyle choices are the primary causes—that our bodies often have a remarkable capacity to begin healing, and much more quickly than we had once realized.

I guess what makes my life’s work different from most people’s is that I have spent most of my adult life using very high-tech, high-cost scientific measures to prove how powerful these very simple, low-tech, low-cost, and often ancient interventions can be. It’s hard doing these studies. It’s hard to raise money for them, it’s hard to recruit patients for them, it’s hard to do all the things that are involved in them. But, properly done with world-renowned collaborators and published in the leading peer-reviewed journals, we can often redefine what’s possible. And by doing so, we can give millions of people new hope and new choices that they didn’t have before.

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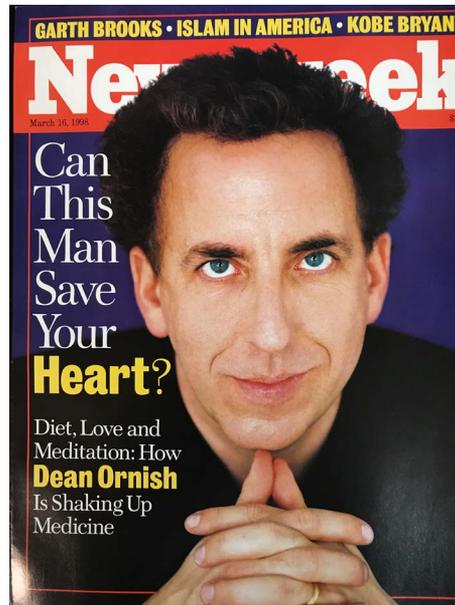
MH What amazes me most about your analysis and perspective is how closely aligned they are with the writings and teachings of the health reformers who founded our organization, like Drs. Herbert Shelton, William Esser, and Gerald Benesh. Are you familiar with any of their writings?

DO Only in the most general sense, but they were certainly onto something and ahead of their time.

MH Speaking of writings, let’s talk about some of yours.

DO Thanks for asking. My newest book, coauthored with my wife, Anne, with whom I’ve worked for over 24 years, is called *Undo*

It! The title is actually an homage to the Swami, because he liked to make puns. People would often say to him, “What are you, a Hindu?” and he would respond, “No, I’m an Undo.” Another reason I chose this particular title was that one my favorite keys on the computer keyboard has always been the “undo” button. I thought, “Wouldn’t it be nice if we had something like that in our lives?” and to a much larger degree than I’d appreciated, we do.



MH Tell me more about the book.

DO *Undo It!* puts forth a unifying theory, confirmed by 44 years of research studies I’ve directed, that the same lifestyle interventions can have a powerful and beneficial effect on a wide variety of health problems. Those interventions include a whole-food, plant-based diet that’s low in fat and refined carbohydrates. They incorporate moderate exercise, like walking half an hour a day and including some strength training and stretching. They also involve meditation, other yoga-based techniques, support groups, and spending more time with your friends and family. Simply put, my prescription for everyone is to eat well, move more, stress less, and love more, and these same lifestyle changes can often stop and even reverse the progression of a wide variety of chronic diseases.

My colleagues and I were the first to prove in a series of randomized trials that even severe heart disease could often be reversed by making these lifestyle changes. Type 2 diabetes, high blood pressure, high cholesterol...let me give you some examples.

Early on, we did a randomized control trial with the then-chair of urology at Memorial Sloan Kettering Cancer Center in New York and at the University of California-San Francisco, where we demonstrated that the progression of early-stage prostate cancer may often be stopped and even reversed by making these lifestyle changes.

[Chronic lifestyle diseases] all share the same underlying biological mechanisms. Each one of these mechanisms in turn is directly influenced by what we eat, how we respond to stress, how much exercise we get, and how much love and support we have.

We did a study with Elizabeth Blackburn, who received the Nobel Prize for discovering telomeres, the ends of our chromosomes that regulate cellular aging. Her research showed that as we get older, our telomeres get shorter, and as our telomeres get shorter, our lives get shorter and the risk of our coming down with a wide variety of chronic diseases was proportionate to that. She had done studies with Elissa Epel showing that people who smoked or who were sedentary or who ate junk food or who were under chronic stress, their telomeres get shorter faster. One day I said to her, “You know, if bad things make your telomeres shorter, maybe good things in the form of positive lifestyle changes make them longer.” She was intrigued with the thought, and we undertook a study together. We published our first paper 14 years ago in *The Lancet Oncology* showing that telomerase, the enzyme that repairs and lengthens telomeres, increased by 30% after just three months of positive lifestyle interventions, and over a five-year period, the telomeres actually got 10% longer as compared to the control group, which got shorter during that time. When the study was published, the *Lancet* editor sent out a press release worldwide announcing, “First study showing lifestyle changes may reverse aging at a cellular level.”

We published another study with Craig Venter, who was the first to decode the human genome. Our study showed that over 500 genes were positively impacted in just three months—turning on genes that keep us healthy and turning off genes that cause us to get sick.

MH What studies are you currently working on?

DO We're now in the middle of conducting the first randomized trial to see whether these same lifestyle changes may stop and perhaps even reverse the disease progression in men who have early-stage Alzheimer's disease. We are at a place with Alzheimer's disease very reminiscent of where we were four decades ago with heart disease. At that time, it was thought you could only slow down the rate at which heart disease got worse. However, we found that it was more an ounce of prevention, pound of cure, and that bigger lifestyle changes could often reverse it. The same may be true with Alzheimer's. The less intensive lifestyle interventions have shown that you can slow the rate at which you progress into dementia and get worse; my hypothesis is that more intensive lifestyle changes might stop or perhaps even reverse it. So, we're in the middle of studying that.

You know, fools rush in where angels fear to tread. That was me.

I wondered why it is that these same lifestyle changes have such far-reaching applications and implications. And it became clear to me that although I was trained, like all doctors, to view heart disease and type 2 diabetes and prostate cancer and so on as being fundamentally different diseases with different diagnoses and different treatments, they all share the same underlying biological mechanisms—chronic inflammation; oxidative stress; changes in the microbiome, immune function, telomeres, and gene expression; angiogenesis, apoptosis, and so on. Each one of these mechanisms, in turn, is directly influenced by what we eat, how we respond to stress, how much exercise we get, and how much love and support we have.

This radically simplifies what we tell people and helps explain why we also find comorbidities, where the same person will often have heart disease and type 2 diabetes and be overweight and have high cholesterol and high blood pressure and so on. In T. Colin Campbell's *China Study*, he documented that 50 or 60 years ago, entire countries in Asia had very low rates of all these conditions. But when they began to eat like us and live like us, they began to develop these same chronic diseases and often die like us.

Undo It! begins with one of my favorite quotes from Albert Einstein where he says, "If you can't explain it simply, you don't understand it well enough." So, my goal was to reduce things down to their essence: to eat well, move more, stress less, love more. And when we work at that level, we find that not only can so many of these chronic diseases be prevented, but they can often be stopped or reversed.

MH I have been an observer of the whole-food, plant-based health world for a long time, and when I was preparing for the interview, I looked back and discovered that back in 1990 when you wrote your first book, *Dr. Dean Ornish's Program for Reversing Heart Disease*, you were pretty much a loner in the medical field, arguing for the pivotal role of lifestyle medicine. The only earlier ones I could find were John McDougall's *The McDougall Plan* in 1983 and Michael Klaper's *Vegan Nutrition: Pure and Simple* in 1987.

DO That was actually my second book. My first book was called *Stress, Diet, and Your Heart*, and I wrote that at the beginning of my internship in 1980. So, I really have been doing this a very long time.

And again, I've had some really good teachers along the way. I actually did my first study in 1977 when I was a second-year medical student. After I did my core surgery rotation with Dr. DeBakey, and I became immersed in learning that researchers could cause dogs and cats as well as pigs and rabbits and monkeys to get heart disease if they fed them an unhealthy diet, didn't let them exercise, made them smoke cigarettes, put them under chronic stress, and kept them isolated, but that they could reverse it if they changed all those things. I don't do animal experiments, but I began to wonder, "Why should people be any different?" But others said, "Oh, no, it's impossible. You know, the best you can do is slow it down. You can't do better than that."

But one of the nice things about being a medical student is that you're not yet fully indoctrinated. So, I took a year off (much to my parents' dismay) between my second and third years of medical school to do my first study. I took ten men and women, put them in a hotel for a month, and guided them into these lifestyle changes.

MH How were you legally able to do that? You weren't even a doctor at the time.

DO Well, one of nice things about being in Texas is they have this pioneering ethos.

It's like, "Oh, you've got this weird idea? Go for it." In my case, the chief of medicine donated the tests and the chief of cardiology referred patients to us. I went to every hotel in Houston, and the last one, the Plaza Hotel, gave us ten rooms for a month. Susan Franzheim gave me my first grant, which was barely enough to live on for a year. You know, fools rush in where angels fear to tread. That was me. I did everything except cook the meals. Out of the ten patients, eight of them got better. They not only felt better, but we used a new test at that time called a thallium scan that measured blood flow to the heart, and eight of the ten showed significant improvement of blood flow to the heart. That had never been shown before.

That was also my first experience of what happens when you're doing something that's really disruptive: some people pushed back and challenged these results by claiming, "Oh, well, you didn't have a randomized control group. How do you know they wouldn't have gotten better anyway?" My response was, "Well, that's technically true, but have you ever seen any patients get better like this?" "Well, no," they said, "but that's beside the point."

MH That must have been a pivotal moment in your medical career.

DO It was. So, I went back to school, finished my medical degree, then took another year off to do the first of several randomized trials before starting my internship. The first was just about a month long. We found that the experimental group got better, the control group got worse, and the differences between the two were highly significant. We published those results in *The Journal of the American Medical Association*. I then went on to Harvard Medical School and Massachusetts General Hospital to do my medical residency and fellowship.

After completing these, I moved to San Francisco in 1984 and began the most definitive study, called "The Lifestyle Heart Trial," also a randomized trial. This one used quantitative arteriography to measure the amount of blockage in the coronary arteries and cardiac PET scans to measure blood flow to the heart. What we found was that in the group that made the lifestyle changes we recommended there was some reversal of the coronary blockages after one year—they got less clogged—and after five years, there was even more improvement. In contrast, in the randomized control group, who had followed the traditional American



LUCAS, JASMINE, DEAN, AND ANNE ORNISH

Heart Association dietary guidelines and exercising, the arteries became more clogged after one year and even more clogged after five years. We published the one-year findings in *The Lancet*, the leading peer-reviewed international medical journal and the five-year findings in *The Journal of the American Medical Association*. We also found that the blood flow to the heart as measured by PET scans improved by 400% in the experimental group but worsened in the control group. We published those additional findings as a separate paper in *JAMA*.

We're getting bigger changes in lifestyle, better clinical outcomes, bigger cost savings, and better adherence and engagement than anyone's ever shown.

MH Did you think the publishing of these studies might fundamentally change how medicine is practiced?

DO I did, and to some degree it has, but not nearly as much as I thought and hoped it would. I realized that one of the primary determinants of medical practice is not just science; it's reimbursement. I thought if we could change reimbursement, then we could really have a powerful transformative effect on changing how medicine is practiced and taught. So, I first went to several insurance companies to describe my approach for reversing heart disease, and Mutual of Omaha became the first major insurance company to cover it. Then Highmark Blue Cross Blue Shield not only began covering it, but also providing the lifestyle program

at 26 sites in West Virginia, Nebraska, Pennsylvania, and Delaware. Mutual of Omaha found that they saved almost \$30,000 per patient in the first year because almost 80% of the people who otherwise would've had a stent or a bypass could choose my Reversing Heart Disease program as a direct alternative and did that safely. Highmark Blue Cross Blue Shield did a matched control study where they compared people who went through my lifestyle medicine program to a control group of people who were matched for age, gender, and disease severity and found that they cut their costs in half the first year and by fourfold in a subgroup of people that they had spent at least \$25,000 on in the preceding year.

MH Any success with Medicare?

DO Fortunately, yes. After years of training hospitals and clinics and physician groups, I thought, "You know, if Medicare would pay for this, that would really be a game changer, because if Medicare covers it, most other insurance companies will follow their lead." But it took us 16 years! We had the support of Bill Clinton when he was President (and who's publicly described that he has been on my reversing heart disease program now for many years) and Newt Gingrich when he was Speaker of the House. We crossed all the usual political boundaries; people came together around this. Finally, Medicare actually created a new benefit category to cover my Reversing Heart Disease program called "intensive cardiac rehabilitation." We then partnered with a company called Sharecare, and since 2011 we have been training hospitals, clinics, and physician groups. And it's working! We're getting bigger changes in lifestyle, better clinical outcomes,

bigger cost savings, and better adherence and engagement than anyone's ever shown. The program's nine weeks long; 96% of the participants finish it, and a year later, 85 to the 90% are still following the program. That level of adherence and engagement is unprecedented. To put that into context, studies have reported that only about a third of people prescribed cholesterol-lowering drugs were still taking them after just four to six months, and that's just taking a pill once a day that's usually paid for by someone else.

The other breakthrough just came in November 2021: Medicare agreed to cover my Reversing Heart Disease program the same way when it's offered via Zoom as when it's done in hospitals or clinics. So, now you don't have to live within driving distance of a hospital or clinic to participate in the program; you can live anywhere. This will help reduce health disparities and health inequities. For me, having seen what a powerful difference this program can make in people's lives, it's really exciting. If anyone who's reading this interview wants more information about how to enroll in the program or, for that matter, in our Alzheimer's study for which we're still recruiting the last group of patients, they can go to ornish.com.

MH Tell me about the role of your wife, Anne, who coauthored your book, *Undo It!*

DO She wrote half the book and has made significant contributions throughout the 24 years we've been working together. She's very well-trained in mindfulness meditation with Jon Kabat-Zinn and was featured on the cover of *Yoga Journal* magazine. She also has taken advanced training in guided imagery with Marty Rossman and Rachel

Remen, and she's finishing her master's degree now in intuition medicine. Our collaboration makes for a nice dialogue, kind of the yin and yang of both the science and the experiential. It's worked amazingly well.

MH Who did all the recipes in the book?

DO The recipes were done mostly by Dennis Malone, a gifted chef who has worked with me for almost 40 years. I've found that the best way to make healthy food taste good is not necessarily to work with a healthy-food chef, but to work with a great chef, even if they're not known for cooking health food, and say, "Work within these guidelines." Great chefs know how to make great food.

MH I would imagine that it must be pretty inspiring for you to look out in the medical world and see so many other cardiologists following in your footsteps, colleagues like Drs. Joel Kahn, Kim Williams, Baxter Montgomery, Columbus Batiste, Andrew Freeman, and others.

DO It really has been, and I'm deeply grateful. Having experienced firsthand the powerful difference lifestyle changes can make, not just in heart health but in so many other areas, it's very exciting to me that it's reaching and influencing so many people—not only the patients themselves, but people like the luminaries that you mentioned who also affect many others. It's having a ripple effect as each person continues to impact others.

That's what gets me out of bed every day. I feel like I've been living on borrowed time since I was 19 and almost killed myself. Having survived that gave me the courage to do things that I probably wouldn't have done otherwise. My experience made me understand how pain can affect people. You know, change of any kind is hard, but if someone's hurting badly enough and you can reach them when they're hurting, like the Swami did for me, it's part of what I call a conspiracy of love. With Medicare and other insurance companies covering our program, we can reach people when they're suffering.

MH Why is conducting research such a priority for you?

DO Part of the value of the research is to redefine what's possible, to show people that if they're willing to make big enough changes, they can often improve, not only in the ways we can measure, but often in ways that we can't. For example, we found that in the 15,000 or so people who went through my Reversing Heart Disease program, depression scores were cut in half,

on average, in most people. That's better than antidepressants. And although we are not even working on treating depression per se, it still all ties together. For me, the research in many ways gives people permission and motivates them to do things that they might not otherwise do. It's kind of like, "I'm really hurting so bad. I can't walk across the street without getting chest pain. I can't make up with my spouse. I can't stop fighting with my kids. I can't go back to work without getting chest pain or angina. So okay, let me give this weird stuff a try." I'm grateful to the leading peer-reviewed medical journals who published our studies which gives this work more credibility, which had a lot to do with Medicare now paying for my Reversing Heart Disease program.

It reframes the reason for making lifestyle changes from a fear of dying to the joy of living.

MH How do most folks respond to your program?

DO As I think I mentioned earlier, the first response is usually, "Well, a plant-based diet, that's pretty weird, but all right, let me give that a try," or "Okay, exercise, I get that, really doing something." "Meditation? That sounds kind of weird to me, too, but I'll give it a try." And when it comes to my advice to love more, "Well, I really don't get that. What's that about? But, okay, I'll try that, too."

The underlying biological mechanisms of these changes are so dynamic that when people make them, they generally feel so much better, so quickly. For example, cardiac patients typically experience at least a 90% reduction in the frequency of chest pain in just the first two or three weeks. And for someone who can't do all the things I mentioned earlier, they can now do many of them. It reframes the reason for making lifestyle changes from fear of dying to joy of living.

MH Can you expand on that concept, since the secret sauce that can get people to make fundamental changes in their diet and lifestyle is something everyone in our health movement is searching for?

DO Sure. I was trained as a doctor to try to scare people to make changes. You know the old warnings: "Put that burger down or get a heart attack. Put that cigarette down or get lung cancer." But fear is not a sustainable motivator; it only works for a month or two after someone's found out that something

bad has happened to them. After that, they tend to go back to their old patterns. Joy, pleasure, love, and feeling good as a result of lifestyle changes are really the keys to making sustainable change. We've found that in all of our studies: the more you change, the more you improve, not only in how you feel but in ways we can actually measure.

Paradoxically, we find that sometimes it's actually easier for people to make big changes in a lot of different areas at the same time because the positive effect is so powerful and so quick. There is synergy.



People say things like, "You know, I liked eating junk food, but not that much anymore because I now feel so much better. I can do many of the things I couldn't do before. I can walk across the street without chest pain, play with my kids, make love with my spouse, go back to work. These are choices worth making. What I gain is so much more than what I give up—and quickly! And yes, I'll probably live longer."

MH Do you find a link between food and lifestyle and depression?

DO Yes. So many people use food as a way of coping with their loneliness, their depression, and their isolation. They'll say things like, "Food fills my void or fat coats my nerves and numbs the pain." Or they rely on other things to numb or distract them from their pain—cigarettes, opioids, alcohol, video games, working all the time. One of the things I learned from the Swami years ago was "Don't focus just on the behavior and don't focus just on giving people information. Those are important, but not usually sufficient." We have to work at a deeper level, and for many people, the deeper level is what I was experiencing when I was in college—the loneliness, the depression, the isolation, and the sense of being out of control. Showing people and empowering them with these simple choices can make such a profound difference. Again, because

these biological mechanisms are so dynamic, people can really connect the dots between what they do and how they feel. And when that understanding comes out of their own experience, that's really what makes it sustainable: "When I do this, I feel good; when I do that, I don't feel good. So I'll do more of this and less of that."

MH Just a couple more questions about your program. One of the many consequences of COVID was the move to telemedicine. Are your programs back to being live?

DO Not yet. We're currently doing our Reversing Heart Disease program via Zoom, and we've also been conducting our Alzheimer's clinical trial that way. If anything good came out of COVID, it was learning that those could work almost as well doing them by Zoom as doing them in person. I initially thought it was unlikely to work because the heart disease program was too high-touch a program, but it proved me wrong. I was pleasantly surprised to discover that and realized that now we can reach people wherever they are, even those who don't live within driving distance of one of the hospitals or clinics or physician groups that we train. They can live anywhere in the country or even anywhere in the world!

Because these biological mechanisms are so dynamic, people can really connect the dots between what they do and how they feel.

MH May I assume it's also less expensive?

DO It's often significantly less expensive for the patients because they don't have to drive and park and do all those kinds of things. Prior to COVID and Zoom, we had people who were driving up to two hours each way. Now they can just do it all from the privacy and comfort of their own homes.

MH Can people who aren't eligible for Medicare still participate in your program?

DO They can, and while some insurance companies are covering our program, our hope is that eventually all other insurance companies will follow their lead. If patients don't have insurance that will cover it, the programs also accept private pay at a significant discount. But, again, I'm hopeful that other insurance companies will pay for this regardless of people's ages and also that they'll extend the inclusion criteria beyond just people with heart disease. For example,

HMSA, which is Blue Cross Shield for Hawaii, has been covering my program even for people who have just two (or more) risk factors. We're optimistic that we'll see more of that as we collect more data showing that the program's not only medically effective, but also cost-effective. I spent so many years getting Medicare and insurance coverage because I've seen what a powerful difference lifestyle medicine can make in people's lives and wanted it to be widely available to those who most need it.

MH I guess the good news is that you are able to tell insurance companies as well as their customers that those who participate in your heart reversal program get the benefit of improving many other aspects of their health.

DO Yes, that's the whole point. What's good for your heart is good for your brain and for pretty much everything else. In a sense, this has become the Trojan horse. After all, we all have to eat; it's just a question of what.

MH As you look forward, are you optimistic about the continued growth of lifestyle medicine despite all the bombardments we get every day from the pharmaceutical industry?

DO Yes, very much so. I think there's a convergence of forces that makes it the right idea at the right time. The limitations of drugs and surgery are becoming clear. Cardiac surgeons were doing bypass surgery for many years before they did any randomized controlled trials, which found that bypass surgery didn't really work as well as people thought. They've been doing angioplasties and stents for decades, and there are now over eight randomized trials showing that in stable patients stents and angioplasties really don't prolong life, don't prevent heart attacks, don't even reduce angina when compared to a control group.

The same is true for type 2 diabetes. Half the population today has type 2 diabetes or prediabetes, but most type 2 diabetes is preventable and often even reversible by making these lifestyle medicine changes. And the only side effects are good ones.

And in the case of early-stage prostate cancer, only one out of 50 men in two different ten-year randomized trials published in the *New England Journal of Medicine* was shown to live longer because of surgery or radiation or chemotherapy. The other 49 often become impotent or incontinent or both, without living longer. We've done a randomized control trial that I described earlier which showed that

many men who have early-stage prostate cancer may slow, stop, or even reverse its progression through these lifestyle changes alone. And this is to say nothing of the potential savings in financial costs.

MH How large is that financial cost?

DO In this country alone, we spent \$3.8 trillion last year on what's called healthcare, which is really mostly disease care. 86% of that was for treating chronic diseases which we now know can often be prevented or sometimes even reversed simply by changing lifestyle.

There's a convergence of forces that makes it the right idea at the right time.

MH What an impact your important work offers! And speaking of impact, I'm sure that COVID-19 and its variants will still be with us and impacting so much of our lives when this interview is published. How do you look at the relationship between the lifestyle medicine practices you recommend and dealing with COVID?

DO These principles are especially true when it comes to COVID-19. It's just another example of the unifying theory of disease we talked about earlier. Clearly, the people who are most likely to require intensive care units and ventilators and to die from COVID are those who have chronic diseases, who suffer from type 2 diabetes, and who are overweight, which triples your chance of dying from it.

There were two studies that came out recently that I thought were compelling. One looked at almost 3,000 front-line healthcare workers in six countries who had extensive exposure to COVID-19. The study found that those who were following healthy plant-based diets were 73% less likely to develop moderate or severe COVID. They also found that those following pescatarian diets were 59% less likely. But those following low-carb, high-animal-protein, Atkins/paleo/keto-type diets were 400%, or four times, more likely to develop moderate to severe illness due to COVID.

The second study that came out was from the Harvard School of Public Health and Kings College in London. They looked at almost 600,000 people and found that those eating a healthful plant-based diet had a 41% decreased risk of moderate to severe illness.

These are particularly compelling findings with regard to the Omicron variant, where



medicine is. For me, lifestyle medicine is the most exciting field in medicine today. It's among the fastest growing, and its focus continues to be on using lifestyle changes to not only prevent disease but to treat and often even reverse it.

What is the radical choice here? Get a heart transplant? Or eat well, move more, stress less, love more?

even those who are triple-vaccinated are susceptible to breakthrough infection. More and more people are asking, "What else can I do to help enhance my own immune system?" This is just one more example of why a whole-food, plant-based diet, especially when combined with other lifestyle changes, can be so powerful and so beneficial.

MH Are you frustrated that with all the COVID-19 task forces and such, that there's no mention of this?

DO Well, I'm doing what I can to get the word out through giving lectures, engaging in interviews like this, and publishing my studies. *US News & World Report* rates diets every year. A couple of weeks ago, they rated what they call "The Ornish Diet" #1 for heart health for the 11th year since 2011, when they began rating diets. Those kinds of platforms afford me an opportunity to educate people. And as I mentioned earlier, that's what brings me a sense of meaning in my life.

MH How do you fight the fascination people so often have with so many of the powerful tools of modern medicine?

DO Drugs and surgery can be lifesaving when used appropriately; we've all benefited from these. The biggest obstacle I've found in all four of my decades doing this work is that people say, "Oh, diet and lifestyle, that's kind of boring. How powerful could that be, particularly in comparison to this new drug, new laser, or new procedure?" And again, I think our unique contribution has been to use these very high-tech and expensive state-of-the-art scientific measures to prove the power that simple lifestyle changes often can have.

Undo It!, which just came out in paperback, begins with the story of one of the many people I've worked with who had severe heart disease. He'd suffered a massive heart attack that caused extensive damage to his heart and was told that a heart transplant was his only chance to stay alive.

This patient is an internal medicine doctor himself. He went through my Reversing Heart Disease program at UCLA primarily to get in better shape for the operation while they were looking for a suitable heart donor. In just nine weeks, his heart was pumping so much better that he didn't need the heart transplant. That was about four years ago. He just called me a couple months ago and is actually better now than he was then. Prior to going on my program, he literally couldn't do anything. He had to be carried up the stairs to his room. He said, "I had dead patients who look better than I did." That also saves Medicare over \$1 million by avoiding a heart transplant he otherwise would have received.

The question is: what is the radical choice here? Get a heart transplant? Or eat well, move more, stress less, love more? He chose the latter, and his case shows very graphically how powerful these simple-to-adopt changes are and how quickly people can often experience powerful benefits.

MH Have you found that even people in their eighties can benefit from these simple changes and not just younger people with presumably stronger constitutions?

DO Yes. When I began doing this work, I thought incorrectly that the younger patients who had less severe disease would do better by changing their lifestyle than those who were older, but I was wrong. It turns out that it wasn't how old or how sick they were, it was simply a function of the more they changed, the more they improved at any age. That's a very empowering realization—to know that as long as you're alive and stable, it's never too late to begin making these changes. And for that matter, it's never too early.

I think the reason I'm known as the "father of lifestyle medicine" is because I've been doing this for so long and I've been able to thoroughly document through peer-reviewed research studies how powerful lifestyle

MH Do you still teach?

DO Yes, I do, and I continue to really enjoy that. I'm a clinical professor of medicine at both the University of California-San Francisco and the University of California-San Diego. I am also the founder and president of the nonprofit Preventive Medicine Research Institute, where we often have medical students rotate with us.

MH How do your medical colleagues look at you? Are you gaining more acceptance and respect or are you still received with skepticism as that weird lifestyle medicine guy?

DO Well, when I began doing this, most of my colleagues didn't quite know what to make of it, but now that my studies have been published in respected medical journals and Medicare and many major insurance companies are paying for it, it's been very well-accepted.

This work is hard, but that's what makes it meaningful. It's part of what the Swami used to say: "The reason they built temples on hills with lot of steps is because you have to work hard to get there. And working hard to get there is part of what makes it meaningful." It's why I think all spiritual paths and religions have different dietary guidelines. In some religions you can eat this but not that or only during certain times each day or on certain days of the week or at certain times of year. I think when you get past whatever the intrinsic benefits of such diet changes are, just the act of choosing not to eat certain foods or not do certain things can imbue those choices with meaning. And if it's meaningful, then it's sustainable.

For me, I also think that awareness is the first step in healing, and I'm grateful to you for giving me this opportunity to share these findings with your readers. I hope that it raises awareness and can be helpful to them.

MH The appreciation is ours! 🌱



The National Health Association

Its History and Evolution from the American Natural Hygiene Society to the NHA

by Frank Sabatino, DC, PhD

It often has been said that if you do not remember the lessons of history, you are likely to commit the mistakes of the past. However, inherent in the lessons of the past are also past successes and wisdom that afford us a unique starting point from which to accelerate a positive change and evolution of awareness. This process has been referred to as time-binding. As we pay homage to the people who have paved the road before us by standing on their shoulders as our starting point, we can benefit from their original insight and accomplishments to foster even more exponential growth and progress in our present and future.

The principles of hygiene are as old as life itself and directly address the fundamental biological and psychological needs of all living things.

The current National Health Association (NHA) is the natural evolution and present embodiment of the oldest existing whole plant-food diet/health organization in the USA, the American Natural Hygiene

Society, which was founded in 1948 by Dr. Herbert Shelton and a group of like-minded physicians and thinkers. The purpose of the original Society was to spread the knowledge of hygiene and hygienic living as a unique perspective and science of health. It is important to realize that the principles of hygiene are as old as life itself and directly address the fundamental biological and psychological needs of all living things. Hygiene echoes an ancient fundamental truth that when the basic requirements of life (proper nutrition, fresh water, activity, rest, sunshine, fresh air, and emotional poise) are appropriated consistently by all living organisms that have the inborn ability to regulate and heal themselves, health follows like water flowing downhill. Health is not a commodity that can be bought and sold. It is simply and profoundly built and maintained by healthful living.

Yet as basic as this science of health is, it took a group of physicians and forward thinkers in the 19th century to resurrect and expand the principles of hygiene. Their investigations and teachings were in direct response to the poor, abysmal, crowded, and nonhygienic living conditions and health practices around the time of the industrial revolution. It was a time when there was no running water and feces were dumped in the streets. Drinking water was withheld from people with fever and diarrhea as

they dehydrated to death, while windows were kept closed and sealed for both the sick and the well, depriving them of much-needed fresh air. The typical diet of the time was tainted pork, lard, and excessive alcohol, while fresh fruits and vegetables were not allowed to be sold or consumed because it was feared that these foods caused deadly diseases such as cholera. Bathing was uncommon. Physicians—who rarely washed their hands—spread infection among their patients, routinely killing huge numbers of mothers and babies in childbirth. Drug treatment of the day was an array of poisonous substances including mercury, strychnine, arsenic, tobacco, and deadly herbs and plants, coupled with routine bleeding, leeching, and purging that reinforced the epidemic spread of disease and death.

On this background, early pioneers like Sylvester Graham, a minister and pioneer of health education in the early 1800s credited with the creation of fiber-rich Graham crackers, and medical doctors including Isaac Jennings, William Alcott, Thomas Nichols, Russell Trall, and Susanna Dodds challenged and changed the abuses of the day. They advocated for the inclusion of all hygienic requirements, including fresh air, bathing, diets of fresh fruits and vegetables, and women's rights, and they even established hygienic medical schools



1963 CONVENTION IN SAN DIEGO

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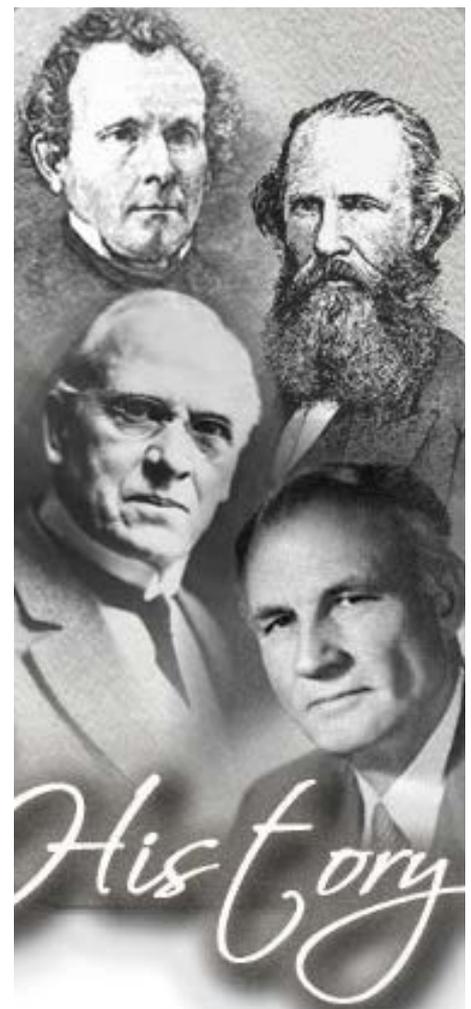
that were the first to train female physicians. These iconic figures, along with Dr. John Kellogg and Ellen White, the founder of the Seventh Day Adventists, promoted high-fiber cereals and breads, plant foods, and temperance with alcohol and tobacco, and led a Hygienic crusade against the abusive medical practices of the day. Drs. Trall and Alcott also helped found the American Vegetarian Society in 1850.

The impact of these new ideas, practices, and radical thinking had a revolutionary, widespread influence on all of society, including writers and activists of the day, that led to major medical and health reform. It fostered a major interest in public health along with an attack on the inhumane and unsanitary conditions in meat-packing plants, a positive change in governmental regulations of food and drugs, and a significant decrease in widespread infections, morbidity, and mortality, thereby increasing life expectancy and quality of life.

By the early part of the 20th century, the fundamental principles of hygiene became diluted in a variety of nontraditional therapeutic schools and alternative treatment approaches. This led Dr. Herbert Shelton, a naturopath and chiropractor in the 1920s and 1930s, to highlight, gather, and organize the fundamental principles of ancient hygienic wisdom and the work of the health pioneers of the 19th century into a body of knowledge he called *natural*

hygiene to distinguish it from general practices of sanitation and personal hygiene linked with an assortment of questionable therapies and therapeutic schools of the day. Dr. Shelton, arguably the most prolific writer and teacher of hygienic living, spread the knowledge of hygiene in his monthly *Hygienic Review* magazine; in his own hygienic center/water-only fasting institute, Dr. Shelton's Health School in San Antonio, Texas; and in almost 40 books he wrote on all aspects of the philosophy, principles, and practice of hygienic living. In many ways his classic book, *Natural Hygiene: The Pristine Way of Life*, is the bible of natural hygiene. His passion and commitment to hygiene drove him to establish the American Natural Hygiene Society in 1948, and he and the Society were a major influence on thousands of health seekers and like-minded physicians who practiced fundamental hygienic healthcare along with water-only fasting from then until the present day.

The work of Dr. Shelton and his early contemporaries, Drs. William Esser and Christopher Gian-Cursio, paved the way and passed the baton to several generations of dedicated hygienic physicians including Drs. David Scott, Alec Burton, Virginia Vetrano, Keki Sidhwa, John Brosious, Gerald Benesh, Robert Gross, and eventually to the hygienic physicians practicing today.



FROM TOP TO BOTTOM:
GRAHAM, TRALL, TILDEN, SHELTON



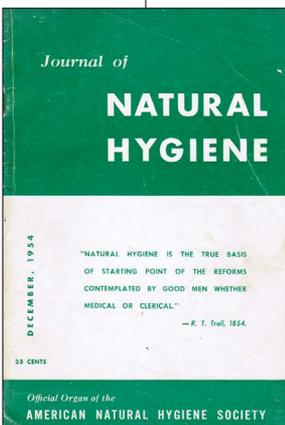
DR. HERBERT SHELTON AT THE 1959 CONVENTION IN DETROIT

The best that science has to offer continues to corroborate, reinforce, and provide the evidence base for the health truths this organization has been about since its inception.

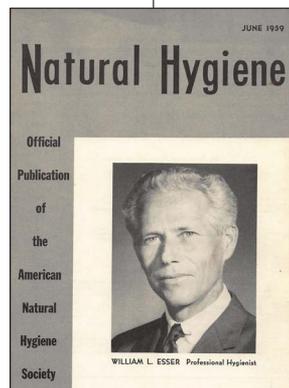
What sets the NHA apart from all other health organizations is its foundation in the principles of hygiene, the true science of health, and its advocacy of water-only fasting for detoxification, recovery, and healing. It promotes the essence of true healthcare—promoting the conditions that support the normal functions of life and rejecting choices that have no healthy or normal relationship to our well-being and outcome of health. It does not promote therapies and treatment modalities but rather a way of life that is grounded in the true requirements of health.

The NHA is at the vanguard of teaching the most important nutrition and lifestyle modifications essential to support our best opportunity to be well. And as we unequivocally support health science, it is so profound and important to realize that the best that science has to offer continues to corroborate, reinforce, and provide the evidence base for the health truths this organization has been about since its inception. The NHA is unwavering in its commitment to expand this evidence base and continue to support the research and investigations that emphasize the value of plant-exclusive nutrition, healthy lifestyle modifications, water-only fasting, and the fundamental truths of hygiene. The NHA is compelled and committed to utilize all technology and media platforms to spread and share the information critical for healthful living to promote the health of all people, all species, and planet Earth itself. We invite you with open hearts and minds to join us on this worthwhile endeavor and journey. 🌱

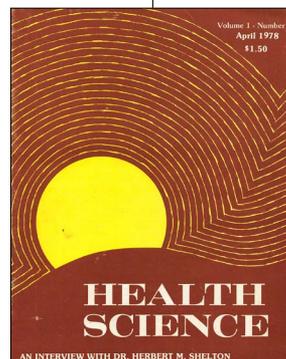
1954



1959



1978



2022





Men's Health Concerns

SUPPORT YOUR PROSTATE AND SEXUAL PERFORMANCE

by Frank Sabatino, DC, PhD

There are several health issues unique to men including prostate enlargement, prostate cancer, and erectile dysfunction that strike fear, frustration, shame, and relationship distress in a large portion of the male population. Unfortunately, while billions of dollars are spent on expensive medical and surgical treatments and on a unique supplement industry that has expanded beyond comprehension specifically to treat these problems, the basic nutrition and lifestyle choices that can truly provide hope for the suffering male population are largely overlooked.

BPH and Prostate Cancer

The prostate is a walnut-sized gland under the bladder that produces seminal fluid, which nourishes and transports sperm in the process of ejaculation during sex. It also surrounds and houses the top portion of the urethra, the tube that drains urine from the bladder. Diets high in animal products; saturated, trans, and oxidized fats and oils; refined sugar; and salt provide acidosis, irritation, and a variety of additional excesses including glycated proteins

(AGEs), heme iron, oxidized cholesterol, and arachidonic acid that increase chronic inflammation and damage the glands and organs of the body.

Approximately 1 in 8 men, at an average age of 66, are diagnosed annually with prostate cancer, accounting for 270,000 new cases in the last year alone.

As the prostate is inflamed and potentially damaged over time, its cells can multiply and increase the size of the prostate. This enlargement is called benign prostatic hypertrophy (BPH) and causes a swelling of the prostate that squeezes the urethra and blocks the flow of urine. As a result, typical symptoms of an enlarged prostate include incontinence, sudden urges to urinate,

straining to urinate, and the need to urinate many times during the night (nocturia), which can create the debilitating problems of sleep deprivation.

If the cells of the prostate continue to be chronically inflamed and damaged over time, they can develop into prostate cancer, which is the second leading cause of cancer death in American men (behind lung cancer). Approximately 1 in 8 men, at an average age of 66, are diagnosed annually with prostate cancer, accounting for 270,000 new cases in the last year alone. Monitoring of the progression of cellular change from the benign to the cancerous state is often done with blood tests for a particular protein in prostate cells called prostate specific antigen (PSA). It is important to note that as PSA increases, the chance and risk of having prostate cancer goes up, but there is no set cutoff point or number that can tell for sure if you have cancer. Follow-up procedures including scans and biopsies are necessary to make a clear distinction and diagnosis. If cancer is present, a grading system consisting of the Gleason score (6–10) and Gleason group rating system

(1–5) is used to evaluate how much the cancer has deviated from the appearance of normal cells and how likely it is for the cancer to grow and spread slowly or quickly. Monitoring of active prostate cancer is important because advanced cancers of the prostate can spread (metastasize) to bones in the spine and pelvis.

Fortunately, while prostate cancer is not something to be taken lightly, treatment programs have been remarkably successful. More than three million men in the U.S. who have been diagnosed with prostate cancer at some point are still alive today.

It is important to realize that nutrition and lifestyle factors have a huge impact on prevention and reversal of prostate problems. Diets high in protein and saturated fat derived from milk, fish, poultry, and eggs promote insulin resistance that eventually increases both insulin and body fat. Such diets also contain an excessive concentration of insulin-like growth factor 1 (IGF-1), which has been associated with a higher risk of prostate, breast, and colorectal cancer. Milk is the biggest culprit and greatest source of this growth factor; even small increases of daily cow's-milk consumption cause dangerous dose-related increases in IGF-1.¹ This alone emphatically reinforces that these foods are not fit for human consumption and that milk and dairy products have no place in the diets of children or adults—especially in men trying to prevent or reverse prostate cancer.

Water-only fasting provides a unique opportunity to remedy this situation. The detoxification and autophagy of water-only fasting significantly reduces inflammation and the exaggerated growth and spread of cells while significantly reducing IGF-1. In addition, water-only fasting also increases IGF-binding protein 1, which binds IGF-1, making the free, active form less available and blocking its destructive action.

Increased body fat and weight gain are major factors for increasing inflammation and cancer risk. Visceral fat releases a unique group of chemicals that promote inflammation (adipokines), including adiponectin, resistin, and TNF-alpha, that promote dangerous chronic inflammation and potential cellular damage of the prostate.^{2,3} Eating a low-calorie-dense,

high-nutrient-dense, plant-exclusive diet without added salt, oil, and sugar is the most efficient and healthy way to lower body fat and weight gain and reduce the potential hypertrophy and risk of prostate cancer. Three major studies from 1993 to the present of over 160,000 people in the U.S., U.K., and Taiwan (Adventist Health Study-2, EPIC-Oxford, and Tzu Chi Health Study, respectively) have shown that plant-exclusive diets significantly decrease cancer risk while reducing inflammation by as much as 50% compared to standard animal-based refined diets.^{4,5} A diet loaded with a diversity of vitamins and minerals, antioxidants, essential fatty acids (from flax, chia, and hemp seeds), and polyphenols and other phytonutrients from a diversity of raw and cooked greens, cruciferous veggies, berries (especially blueberries), mushrooms, nuts, and other seeds is ideal for prostate health. Preliminary studies presented at the March 2021 meeting of the Endocrine Society have suggested that the liberal use of white button mushrooms can decrease the production of PSA and slow down the progression of prostate cancer.⁶

Shockingly, data from the Massachusetts Male Aging Study has shown that the incidence of erectile dysfunction (ED) is 40% in 40-year-old men and 70% in 70-year-olds.

Nutrition and lifestyle factors also have a direct epigenetic effect on genes that affect prostate cancer. Cancer gene expression was evaluated in the biopsies of men with prostate cancer who participated in a three-month lifestyle program including low-fat, whole-plant foods (<10% fat), walking 30 minutes six times per week, routine yoga, and psychosocial support group counseling. Remarkably, this lifestyle support program suppressed 453 genes that promote prostate cancer.⁷ In a one-year follow-up of men who maintained these constructive lifestyle choices, there was an additional

decrease in PSA levels and cancer growth was eight times less than controls.

Testosterone and Cancer

As men age there is a natural and protective decline in the reproductive hormone testosterone (T). Reproductive hormones like estrogen and testosterone are growth hormones that peak during the time of puberty, growth, and development. Even though it can promote decreased body fat, higher energy, and increased muscle mass at any age, testosterone is less necessary when men are no longer actively growing. So, at that stage, the body naturally lowers T to prevent the abnormal growth of cells and a potential increase in the risk of cancer growth. Therefore, raising T levels, as is often done in typical medical anti-aging programs, may not be in your best interest. For men who have low (but normal) levels of testosterone, higher T levels may enlarge the prostate. And while there is no concrete evidence that testosterone causes prostate cancer directly, there are data that suggest it may provoke the growth and spread of already existing cancer.

Erectile Dysfunction and Sexual Performance

Shockingly, data from the Massachusetts Male Aging Study has shown that the incidence of erectile dysfunction (ED) is 40% in 40-year-old men and 70% in 70-year-olds.⁸ The frustration, shame, and distress associated with this remarkable loss of function has driven millions of men to buy hope wherever they can find it. This has spawned an array of drug, hormonal, and surgical interventions with potential adverse effects in addition to a plethora of greedy entrepreneurs touting expensive supplements with questionable, if any, benefits.

It is an unconscionable, sad commentary on the poor eating and lifestyle habits of our population that so many men, at such early ages (and frankly, any age), have lost the ability to experience sexual pleasure and the quality of life that it affords. And I can tell you from personal and professional experience that eating plant-exclusive, along with consistent exercise and stress-response management, can restore and enhance remarkable sexual performance even in your sixties, seventies, and eighties—without drugs like Cialis and Viagra.



Three major studies from 1993 to the present of over 160,000 people in the U.S., U.K., and Taiwan (Adventist Health Study-2, EPIC-Oxford, and Tzu Chi Health Study, respectively) have shown that plant-exclusive diets significantly decrease cancer risk while reducing inflammation by as much as 50%.

Creating and maintaining an erection involves several neurovascular, hormonal, and psychological factors. The neurovascular component is the most important part of the ED story. All romance starts in the brain. Sexual arousal activates cells in the brain that signal nerve cells in your pelvis and genitals. Ultimately, nitric oxide is released from nerves and cells of the penis, activating a specific enzyme to relax and dilate the smooth muscle of blood vessels (arteries) that engorge the penis with blood while occluding the veins of the penis that take blood away. As a result, a firm erection that is necessary for sex can be created and maintained.

This strongly suggests that nutrition and lifestyle factors affecting blood and oxygen supply throughout the body can affect the function of the penis. Low-fiber diets that are high in animal fat, protein, and processed foods and low in whole plant foods provide excesses of oxidized cholesterol, trans/oxidized fat, heme iron, TMAO, AGEs, and salt. These increase inflammation, damage, and plaque blockage of blood vessels that reduce blood and oxygen to all the vital organs

of body, including the heart, brain, and penis. Consistent with this idea, recognized risk factors for ED include heart disease, high blood pressure, atherosclerosis, diabetes, and excess circulating fat in the bloodstream (hyperlipidemia). Approximately 50% of men with coronary artery disease report significant ED.⁹ A high-fiber, low-fat, antiinflammatory, plant-exclusive diet loaded with antioxidants and phytonutrients has been shown to reverse vascular blockage and is ideal for enhanced sexual performance at any age, even in your fifties and beyond.

There is also a strong correlation between smoking and alcohol consumption and ED. The incidence of ED increases significantly as the quantity and frequency of smoking increases, highlighting the impact of nicotine on impaired circulation.⁸ And in men that stop smoking, within one year there is a significant 25% increase in the quality and frequency of erections. While both high blood pressure and depression are significant risk factors for ED, medications typically used to treat these problems can also reduce libido and increase ED.

In spite of the significant increase in medical testosterone replacement therapy and testosterone-enhancing supplements to increase energy, libido, and sexual performance for men of all ages, testosterone plays a controversial role in the outcome of ED.

Chronic stress, sleep deprivation/fatigue, and psycho-emotional factors have a huge impact on arousal, sexual intimacy, and performance with your partners. These factors create a relentless activation of your fight-or-flight response that can decrease libido and sexual performance. Chronically triggering the fight-or-flight response with sustained worries, fears, and anxieties exaggerates the release of the hormone cortisol and the neurotransmitter

norepinephrine, which can increase abdominal and visceral belly fat, cause high blood pressure, and constrict blood vessels that decrease the vital blood and oxygen supply to the penis, promoting ED. Mindfully addressing the financial and relationship issues of your life and participating in stress-response management techniques (including meditation, slow/deep breathing, yoga, tai chi, etc.) can be valuable in reducing tension, increasing oxygen and blood supplies, and dissolving your overactive, exhausting fight-or-flight response to dramatically improve sexual performance.

Testosterone and Erectile Dysfunction

While the neurovascular function of the body has the greatest impact on ED and sexual performance, the impact of sex hormones and their function in the communication between the brain and your genitals are of utmost importance. However, in spite of the significant increase in medical testosterone replacement therapy and testosterone-enhancing supplements to increase energy, libido, and sexual performance for men of all ages, testosterone plays a controversial role in the outcome of ED.

Luteinizing hormone from the pituitary gland in the brain stimulates the testicles to produce testosterone. Men typically experience a decrease in testosterone with age that appears to coincide with the time frame when ED is most prevalent. This increase in ED also coincides with the increase in the aging male of a binding hormone that basically locks testosterone up and prevents its action. However, while abnormally low T levels can compromise libido, arousal, and performance, the decline in T levels that most men experience with age is not low enough to induce ED. And for men with low-normal T, raising their T levels does not have any major impact on erectile function.

When men with abnormally low and with normal testosterone were injected with super-high doses of testosterone, only the abnormally low-T group showed an increase in libido, potency, energy, and sexual function.^{10,11} Also, when castrated men are treated with testosterone, there is a recovery of sexual function.¹² So there is some rationale for treating men with an abnormal deficiency of testosterone, but for the majority of men with low-normal or

normal levels of T, there is no real benefit of hormone enhancement. In fact, there may be significant risk. A major concern with all treatment approaches that provide outside sources of testosterone relates to important negative feedback inhibition between the body and brain: long-term treatment with testosterone replacement or T-enhancing supplements can eventually suppress the body's natural production of testosterone from the testicles and can even result in atrophy of the testes. And as discussed previously, testosterone treatment can increase the growth and spread of already existing prostate cancer.

All men must realize that regardless of their age and the prevalence of prostate problems and erectile dysfunction in our culture, hope and health are within their reach.

Obesity is a major risk factor for ED that may relate to its important impact on the metabolism of testosterone. Fat cells have two enzymes: aromatase that converts T into estrogen and a specific reductase enzyme that inactivates the most powerful active form of T (DHT).^{13,14} These fat cell-induced alterations of testosterone may abnormally lower the levels circulating in the bloodstream and diminish erectile function and sexual performance. This is supported by the strong correlation between increasing body mass index (a ratio of height and weight used to define obesity) and a decreased concentration of testosterone in the blood.¹⁵

Anecdotally, my personal and professional experience has shown that men beyond the age of sixty who maintain lower body weight and fat with a diverse, low-calorie-dense, plant-exclusive diet have less ED and extraordinary sexual performance, suggesting that their testosterone levels are being maintained in a normal range. Routine exercise programs including endurance activities (walking, running, biking, etc.) and resistance weight training can improve

circulation, promote fat loss, and even stimulate increased levels of testosterone that can also reduce ED and enhance sexual performance.

All men must realize that regardless of their age and the prevalence of prostate problems and erectile dysfunction in our culture, hope and health are within their reach. Fundamentally, these problems are rooted in food and lifestyle choices that provoke systemic inflammation, neurovascular damage/disruption, and a compromise of specific sex hormones. However, by eliminating alcohol, caffeine, and nicotine and embracing a diverse, low-fat, plant-exclusive diet without added salt, oil, and sugar while cultivating stress-response management techniques and consistent activity, you can promote the integration, balance, and healthy function of your nervous, circulatory, and hormonal systems that dramatically improve prostate health and sexual performance at any age.

For a referenced copy of this article, please email info@HealthScience.org or access this issue's online version with hyperlinks at healthscience.org. 🌱



FRANK SABATINO, DC, PHD, has been a plant-exclusive chiropractic physician for over 45 years and has a PhD in cell biology and neuroendocrinology from the Emory University School of Medicine. He was also an assistant professor at The University of Texas School of Medicine, and his landmark research on calorie restriction, stress, aging, and brain chemistry has been published in a variety of major scientific journals. He is a member of the prestigious Brookdale Fellowship in Gerontology and Aging, a certified International Hygienic Physician, and one of the world's leading experts on medically supervised, water-only fasting. He is also board-certified in addiction care from the American College of Addictionology and Compulsive Disorders.

Dr. Sabatino is the research director for the global Complementary Medical Association in the UK and is a fasting research consultant for the TrueNorth Health Foundation. Dr. Sabatino is especially excited about his new role as the Director of Health Education for the NHA and happy to have the opportunity to promote the ever-growing evidence base for the science of hygiene and hygienic living.

Kitchen Tips from the Pros

Every experienced cook, whether a professional or not, has found techniques and equipment to make their jobs easier. Plant-based cooks who work mostly with produce, grains, and legumes and avoid the standard oils, sugars, and salt have their own set of tips and tricks. Many of these, like batch cooking, are common currency within the WFPB lifestyle, but what about those little works-for-me treasures that cooks have found along the way?

Here we offer a few of the best of these tips from our readers and contributors.

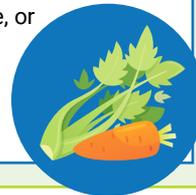
Put lime juice or vinegar in a spray bottle (the ones from beauty salon supply shops are the best quality) and use it to spritz salads or to provide a surface that spices will adhere to on vegetables for roasting or on corn tortillas to bake for oil-free corn chips.

JAN ZIEGLER



I save the broth from when I steam veggies to use later for sautéing vegetables. I also cook soup using carrot juice, celery juice, or sometimes apple juice for added flavor.

WANDA HUBERMAN



Use your pizza cutter!

Besides being great for cutting herbs and greens in a chopping bowl, I've also noticed this is quite often the sharpest knife in short-term rentals.

MAIREAD REDDY



Soy yogurt is ridiculously easy to make, especially in an Instant Pot. You can also thicken the yogurt for other uses by draining out some of the liquid. One easy way to do that is to line a strainer with a piece of fabric cut from a knit T-shirt, a coffee filter, or several layers of cheesecloth. Place the lined strainer in a bowl, add the yogurt, and store it in the fridge overnight. The liquid will drain out, leaving a thick, creamy base that can be used to make a "sour cream" (add garlic and onion powder), as a base for a dressing (try adding a flavored balsamic vinegar), or to make a dip (add a seasoning packet such as those by Simply Organic). Extremely versatile!

JEANNE SCHUMACHER AND KATHARINE EVANS



Freeze your fresh ginger and turmeric to preserve their freshness and prevent spoilage. First, rinse and dry the turmeric and ginger, then store in jars or freezer bags in good-sized pieces. To use, grate using a stainless-steel rasp (also called a zester). You do not need to remove the skin before freezing, but that is an option.

**BRENDA DAVIS,
JEANNE SCHUMACHER,
AND CHEF AJ**



Wash and save empty spice jars, then fill several at a time with all the premeasured spices needed for recipes you make regularly. It will speed up the preparation time substantially.

CHEF AJ



To season air-popped popcorn, purchase an infused balsamic vinegar in a flavor you like and place it in a spray bottle. Spray it on your popcorn to make nutritional yeast or other seasonings stick. Yum!

JEANNE SCHUMACHER



Use Mason jars for grain, bean, nut, and seed storage. I find I save a LOT of time by keeping our nuts and seeds in jars with labels on the lids in the refrigerator freezer. One of the jars contains a mix of seeds (ground flax, chia, hemp, and pumpkin) and chopped Brazil nuts for our breakfast bowls. This way I only need to take out one jar instead of five. I also store our grains and beans in labeled Mason jars in the pantry. Any larger volumes are kept in large zip-top bags in either the freezer or a cool, dark place. I refill the jars regularly.

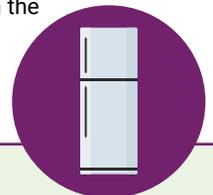
BRENDA DAVIS



Making a cold quinoa salad recipe?

Warm, just-cooked quinoa will cool down quicker if you spread it out over a parchment-lined rimmed baking sheet and place it in the fridge for about 20 minutes.

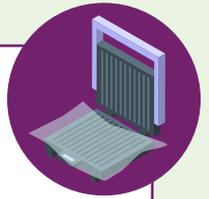
TAMI KRAMER





To help people get past salt addiction, in addition to using a variety of lemon, vinegar, herbs, and spices, a simple strategy for cooking grains like rice and quinoa is to replace $\frac{1}{8}$ to $\frac{1}{4}$ of the cooking water with celery juice, which is naturally high in salt. Grains will absorb this in cooking, and it will satisfy all salt cravings.

FRANK SABATINO



To make the best hash browns on an electric grill, line it with parchment paper so the potatoes won't stick.

MAIREAD REDDY

Spring mix greens go bad so quickly! Instead, I buy baby kale, baby spinach, and arugula. They are sturdier greens that stay fresh much longer, and they can also be sautéed if it looks like we won't eat them before they spoil.

TAMI KRAMER



Dough divider, bench scraper—call it what you will, it's a great tool for lots of other things, too, like slicing tofu or cutting corn tortillas into wedges for chips.

KATHARINE EVANS



I use ice cube trays for freezing vegetable broth (great for sautéing), extra date paste, and lemon juice. Fresh herbs (mint, basil, etc.) can also be frozen in water. [See John Nowakowski's tip for freezing herbs, too.]

BRITTANY JAROUDI



Have sprouts growing in various stages so you always have fresh ones to eat. Glass canning jars are perfect for sprouting smaller quantities. I use a permanent marker on the glass jar to note its type of seed or legume and the date I started sprouting it. The permanent marker easily washes off with soap and water.

TAMI KRAMER



Keep bottles of frozen water on hand and use them to lower the temperature of hot soups and such before storing them in the fridge or freezer. This is not only an important step for proper food handling, it's also kinder to your refrigerator's cooling system.

JOHN NOWAKOWSKI



Freezing fresh herbs is a money and time saver. Chop them up to make them recipe-ready, put them in a container, and freeze. When you need some for your recipe, just scrape them out with the tip of a fork—they flake nicely!

JOHN NOWAKOWSKI



Get a kitchen scale. They're great for working with flour, nuts and nut butters, dates, and for any foods whose irregular shapes or sizes make volume inconsistent to measure. For flours, cup measurements can vary due to how packed the cups are and the flours' moisture levels, but weight measurements are accurate and result in more consistent baking results. Get familiar with weighing in grams, which are listed for each serving size on nutrition labels. For other foods, you can test measure for yourself and make notes. Need half a cup of cashews (65g), but you didn't presoak them? Use an equivalent weight of a smooth cashew butter, which turns out is around one-quarter of a cup. Need a cup of Medjool dates but only have Deglet Noor ones? A cup of any date is about 200g, making the switch simple.

JAN ZIEGLER



When traveling, I sometimes juice fast. Frozen juices pass through TSA, and thaw nicely en route.

MAIREAD REDDY



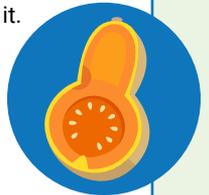
Make cleaning your food processor easier by taking out most of the food with the blade still in place, then giving the processor another pulse. It will clean the blade and make it easier to get the rest of the food out of the bowl.

CHEF AJ



Winter squash is easy to cut when you pierce it with a sharp knife 5–6 times and then microwave it for 3–4 minutes. It will soften just enough that a sharp knife is able to cut through it. Be sure to let the squash cool after taking it out of the microwave so it is easier to handle.

TAMI KRAMER



Sprouts: Become a Kitchen Gardener

by Susan Smith Jones, PhD, and Katharine Evans

Welcome to the wonderful world of sprouts! As a reader of *Health Science*, you undoubtedly know about sprouts and probably enjoy ones like alfalfa and broccoli sprouts as part of your healthy living regimen. But have you ever grown them in your kitchen?

These remarkable gifts of nature are pure, fresh, nutrient-rich, and alive, with their vital force intact. Think about it this way: What food can you easily produce and enjoy whether you are 3 years old or 103, are vegan or omnivore, or are living in an inner-city high-rise or on an isolated island? What food is grown indoors with no soil, is harvested in two to seven days, and is loved by children and adults alike? What can supply your family with fresh produce regardless of the season? The answer is sprouts!

Here are some other reasons to become a fan of sprouts:

- Sprouts increase in nutritional content as they grow, and this increase proves to be truly remarkable. The vitamin C in sprouted peas increases eightfold in four days. The vitamin B complex in sprouted wheat increases sixfold and vitamin E increases threefold in four days of sprouting.
- Increased nutritional value does not stop there. Many different minerals abound in sprouts, and in an assimilable form. Sprouts also provide a storehouse of enzymes and antioxidants. The seeds' proteins convert to free amino acids, and their starches change to simple sugars. Chlorophyll and carotene content increase dramatically in the finishing process, when the sprouts are exposed to sunlight.¹
- Homegrown sprouts are the freshest, most assuredly organic food available to you. Nothing compares with "picking your own" just before you eat them. When you eat sprouts, you are receiving the plant's peak nutrition, when nature has mobilized all of its nourishment to bring forth a mature plant.

- Sprouts are toxin-free, as sweet and pure as nature intended food to be. Quality seeds sprouted with clean water are free of toxic residues. Look for organic seeds that are nonhybrid, untreated, and microbial-tested; also choose seeds grown especially for sprouting with up to 99% rates of germination.
- Sprouting is economical. One tablespoon of seeds, costing less than 50 cents, will fill a quart jar with several ounces of delicious, ready-to-eat sprouts. A 4-ounce package will yield several pounds. And this concentrated nutrition is alive—something that can't be said for most nutritional supplements that cost much more.
- Depending on protein content, one fully packed cup of sprouts contains only 16 to 70 calories in the form of simple sugars for quick energy. Sprouts contain no cholesterol (which is only found in animal products) and provide essential fatty acids. Several, such as alfalfa and red clover, are sweet and satisfying to the taste buds and the body. It is almost impossible to overeat raw, live foods like sprouts. They are the perfect weight-loss and body-purification food.
- Sprouts are tasty and versatile. You may be surprised how truly delectable they are, offering a wide variety of new taste sensations. Add or substitute them wherever you use vegetables; they take very little time to prepare when steamed, boiled, stir-fried, cooked, or even baked into wholesome, homemade breads. My favorite way to eat sprouts is in their raw form. I even make scrumptious raw hummus using sprouted garbanzo beans and raw tahini.
- Finally, sprouts are simple, easy, and fast to grow in any weather with very little care. Most of them take less than a minute or two per day of attention, and they can be grown year-round, nearly anywhere indoors or even in a car on a long road trip! In just two to seven days, you will have a nutrition-packed, bountiful harvest. When stored in your refrigerator, they will stay fresh for days—even weeks if rinsed properly. Keep in mind that homegrown and freshly harvested sprouts are much tastier and more nutritious than store-bought sprouts.

When you eat sprouts, you are receiving the plant's peak nutrition, when nature has mobilized all of its nourishment to bring forth a mature plant.

- Sprouting is ecologically sound. Because they are such nutritional powerhouses, their food value is much higher per unit of production cost than most other foods. This conserves energy and saves processing, packaging, and storage costs. And it also avoids denaturing, contamination, spoilage, and toxic build-up in the food itself.
- Seeds are easy to store, since they do not have to be frozen or preserved to keep them from spoiling. All they require are a few glass jars with airtight lids and a cool, dark storage area. They will store easily in very little space for a year or more.

Botanically speaking, all nuts, grains, and beans are seeds of plants. Every seed can create a new plant, and each plant creates a thousand new seeds which can produce whole fields and forests. This occurs naturally enough in nature, but to imitate this process in your kitchen, you must control the air, water, light, and warmth necessary for successful germination.



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How to Sprout

Start by choosing your seeds or legumes. You want to use seeds specifically sold for sprouting, which are available online and often at natural food stores. In the U.S., many foods that are imported from other countries are irradiated to prevent sprouting before they are sold, so they will never sprout for you. Sprouting seeds, however, are all tested and verified to be free of *E. coli*, salmonella, and other harmful bacteria and pathogens that can thrive in the sprouting environment.² Options include alfalfa, barley, broccoli, buckwheat, fenugreek, chickpeas, green peas, sunflower seeds, lentils, mung beans, radish, clover, and wheat.

1. Add the seeds or dried legumes to a jar or bowl and cover with cool water, using at least 3 times the volume of water for the volume of seeds. Small seeds don't need much space, but legumes will expand significantly. Soak for 8 to 12 hours.
2. Drain and rinse. Add the seeds to a wide-mouth Mason jar topped with a sprouting lid or several layers of cheesecloth rubber-banded around the opening.
3. Prop the jar upside down at an angle in a bowl or other container to allow water to drain. Sprouts benefit from good airflow, so some people prefer to rotate the jar to get the sprouts to adhere around its sides, spreading them out. During the sprouting process, keep the jar in a cool, dark place. If a dark spot isn't readily available, try draping the jar with a small, dark towel to limit the light.
4. Rinse and drain the sprouting seeds two to three times per day. Continue this for two to six days or until sprouts have reached desired length. Sprouts like adzuki beans or lentils take about three days, when small shoots are just starting to grow. Others, such as alfalfa or radish, are usually grown to 1–1½ inches long and take four to six days. Once grown to your satisfaction, you can expose the sprouts to sunlight for several hours or longer to develop their chlorophyll, turning them green.
5. Give the sprouts a final rinse and remove them from the jar. Sprouts should not be stored wet, so wrap them in a clean cloth or paper towel and pat them dry or put them in a salad spinner to remove as much water as possible. Store them in a clean, airtight container in the refrigerator for up to five days.^{3,4} 🌱

¹ Smith Jones, S. *Kitchen Gardening: Rejuvenate with Homegrown Sprouts*.

² <https://wholefully.com/sprouting-101/>

³ <https://www.liveeatlearn.com/how-to-sprout-legumes/#wprm-recipe-container-33224>

⁴ <https://vegsoc.org/lifestyle/sprouting-how-to-sprout-at-home/>



SUSAN SMITH JONES, MS, PHD, has made extraordinary contributions in the fields of holistic health, antiaging, optimum nutrition, and balanced living. She is a wellness consultant, founder and president of Health Unlimited, a regular guest on radio/TV talk shows, and the author of over 2,500 magazine articles and 33 books including her just-released *Uplifted*. For over 30 years, Susan has also been a recipe developer and culinary instructor with a passion for teaching others how to optimize their diets using natural, organic foods and sprouts. Her grandmother taught her how to grow sprouts when she was a teenager, and Susan has been honoring this healthful practice ever since. On any given day, you'll find a variety of sprouts and microgreens growing in her kitchen. Visit: SusanSmithJones.com

From Endometriosis to Lifestyle Medicine

A Family Physician's Story

by Asha Subramanian, MD

"I would advise you to have children right away," said the chairman of the OB/GYN department at that time, who also happened to be my physician.

I was stunned. I was in a follow-up appointment with him, something that was supposed to be routine since he had told me in the postoperative suite that I had "mild" endometriosis. How could I have children immediately? I was a 26-year-old medical student in the middle of physiology, biochemistry, and all the other academic responsibilities that medical students have. I was barely managing to attend class and keep up with assignments with my now-daily nausea, vomiting, and abdominal pain. I had no partner, no money, and now, apparently, no time.

What is endometriosis? Endometriosis is a complex disease of unknown origin that affects up to 10% of women worldwide. It is characterized by the growth of endometrial tissue (tissue that lines the inside of the uterus) elsewhere in the body. Common locations include the ovaries, the Fallopian tubes, the abdominal cavity, and even in the intestines or lungs. This mis-implanted endometrium and the monthly shedding of blood and tissue in the wrong locations cause recurrent irritation, inflammation, and scar tissue. As a result, endometriosis can cause a myriad of symptoms: pelvic pain, cramping, heavy periods, bloating, diarrhea, nausea, vomiting, mood changes, and more. However, it is also an enigmatic disease, as some women have no symptoms at all and it is incidentally found during an infertility workup. The origins of endometriosis are hotly debated; hypotheses include genetic factors, exposure to environmental contaminants and pesticides, and autoimmune dysfunction.

When I asked the OB/GYN what could be done for this condition, he immediately

prescribed oral contraceptives, or birth control pills. Hormones were the standard treatment back then, and in most cases, continue to be today. I was a medical student, yes, but also a very scared and overwhelmed patient. The chairman cut an imposing, stern figure. Who was I to not follow his directions?

How could I have children immediately? I had no partner, no money, and now, apparently, no time.

Let me backtrack, please. My story begins at the age of 13½, when I first started having periods. Starting your menstrual cycle is never fun for any young woman, but for me, it was soon accompanied by monthly cramping and pain. When I discussed this with others, I was told, "This is common and normal," "Everyone has cramps," and "Your mom and your grandma had this." Being naïve, I took it as a genetic burden that had been passed along to me and started my monthly ritual of Ibuprofen and heating pads.

Soon, through college and then medical school, the pain, cramping, bloating, and irritability escalated until the second year of medical school, when I simply could no longer function. I sought help from the student health center, where I was referred to the OB/GYN, and so this story began.

Throughout my training and beyond, I encountered women with menstrual pain. All had similar stories, some worse than others. No one had been told anything much more than what I'd been told. As with many women's health conditions, we were told very little could be done.



I moved forward. I completed my family medicine residency and fellowship under the shadow of endometriosis. The Pill, along with my regular Ibuprofen—which had now escalated to many days every month at high doses—were starting to fade in their effectiveness. By this time, I had met my husband and wanted to start a family. It did not go well. Month after month, we did not get the outcome we wanted. I had four miscarriages at various stages and countless more failed fertility treatments. The continuous heartbreak we experienced cannot be minimized. We consulted with several reproductive endocrinology specialists, most of whom said we would never have children. We were told we were not eligible for adoption either—another story, for a different day. We were devastated.

People sometimes ask me how I got through this time. I think the compartmentalization of bad news/good news that had been woven into me throughout my medical training served me well. At least, it helped to keep me moving forward day to day. I cannot count how many times I would hang up the phone from my own doctors, informing me about yet another failed fertility treatment, and have to compose myself and tell a patient she was pregnant. I was truly joyful for my patients, but I wanted to experience that same elation for myself, too. By 2012, I felt like I probably never would.

Around this time, I began researching other things that could be done for endometriosis and infertility. I came across recommendations as diverse as eating more full-fat dairy yogurt, eating more egg yolks, doing yoga, and acupuncture. Desperate, I did all those things, but for most part, the symptoms became worse or did not improve. Then, I stumbled upon a scientific article on the relationship of



DR. SUBRAMANIAN AND HER WALK WITH A DOC GROUP ON AN OUTING IN APRIL 2021.

dairy, estrogen, and endometriosis. If dairy drove estrogen production, stopping it might help my estrogen-fueled condition. Why not? I thought, and immediately cut out all sources of dairy in my diet. The results were astonishing: within two cycles, I had markedly less pain, decreased use of pain medications, and more stable moods. Perhaps I was on to something!

Although I had grown up eating some meat, I had been a vegetarian for many years. From that point forward, I immediately stopped all animal products and did not look back. I read as much as I could about diet and lifestyle change and how it could improve my condition. I began attending lifestyle medicine conferences. I read books. I applied the knowledge I learned to my patients with remarkable results. Along the way, I had gained weight and picked up prediabetes, depression, and elevated cholesterol. All of those conditions soon reversed. I was stronger, more fit, and more vibrant than I had ever been! I felt so strongly about the power of lifestyle medicine that I pursued further formal education in the field through earning the eCornell Plant-Based Nutrition Certificate, attaining board certification in lifestyle medicine, and earning certification as a Food for Life instructor for PCRM. Lifestyle medicine has changed my personal and professional life forever.

In 2013, with the combination of standard medical treatments, lots of luck, and lifestyle medicine, we finally became the proud parents of a healthy daughter. My pregnancy was the most joyous, uneventful, and beautiful experience of my life. At the age of 40, after six and a half years of struggle and heartache, my pregnancy and birth experience were beyond words. In the end, I feel like this was the way it was meant to unfold.

If dairy drove estrogen production, stopping it might help my estrogen-fueled condition. Why not? I thought, and immediately cut out all sources of dairy in my diet. The results were astonishing.

In 2017, I met Dr. David Sabgir, who is the founder of Walk with a Doc, a national community walking program. Another community primary care physician and I soon started a walking group in our area. We walk every third Saturday of the month at Brookside Gardens in Wheaton, Maryland. Although COVID put a temporary halt to our walks in 2020, in 2021 we were able to restart and have developed such wonderful camaraderie. If you are in our area, please join us, or find a walking group at walkwithadoc.org/join-a-walk/locations.

Shortly before the pandemic, I started Diya Lifestyle and Wellness, my diet and lifestyle consultation business. I still see regular family medicine patients in a clinical position and, of course, talk about the power of diet and lifestyle to anyone who will listen! However, through Diya Lifestyle and Wellness, I can spend the proper time and provide the holistic care that I want to give to those who may know little about whole-food, plant-based eating or who need more intensive support and accountability with lifestyle change. I am available to consult in Maryland and in the DC area as a diet/lifestyle educator and coach on a wide variety of medical conditions. If you are interested in finding out more about me, my services, and my

Food for Life classes, please contact me through diyallifestyleandwellness.com or diyawellness@gmail.com. I am also on Twitter at [@DrAshaSub](https://twitter.com/DrAshaSub) and Facebook at facebook.com/diyallifestyleandwellness. I would be honored to hear from any of you for questions, comments, or just to connect!

I only recently began sharing the details of my journey from endometriosis to improved health with a wider audience. As you might imagine, it is deeply personal and private, and I am still processing everything that I have experienced. As I look back, I think about how not one well-meaning medical professional in the many years I have suffered from endometriosis discussed diet or lifestyle change. This experience emboldened me to begin Diya Lifestyle and Wellness and to be an advocate for those who feel like they have nowhere to turn. I feel like everything happens for a reason. If the reason is that one person will hear about my story and have his or her life changed for the better, then my journey was worth something. 🌱



DR. ASHA SUBRAMANIAN

is a board-certified family medicine and lifestyle medicine physician with specific expertise in evidence-based lifestyle change. She received her BA and MA in psychology with Distinction from

Stanford University and her combined MD/MPH degree from Oregon Health and Science University School of Medicine. She completed her family medicine residency at the University of Pittsburgh St. Margaret Hospital and went on to complete a fellowship in community health at Georgetown University Medical Center. She is an assistant professor at Georgetown University in the Department of Family Medicine. In 2018, Dr. Subramanian obtained a Certificate in Plant-Based Nutrition through Cornell University and in 2019, became a Diplomate of the American College of Lifestyle Medicine. Dr. Subramanian is also a recipient of the Washingtonian Top Docs Award. Her professional interests include lifestyle medicine and the use of good nutrition, exercise, sleep, and other strategies to optimize health; health behavior change; whole-food, plant-based cooking; and community health advocacy. Dr. Subramanian founded Diya Lifestyle and Wellness, LLC to better help individuals and families attain their health and wellness goals.

Mixed Spring Greens and Leek Soup

Lettuces of all varieties grow best in the cooler weather of the spring months, and leeks harvested in the springtime tend to be heartier and more flavorful than smaller summer leeks. This bright, fresh, herbaceous soup takes advantage of three lettuce varieties, packing in a hefty serving of green leafy vegetables in each bowl. With the addition of the white beans and milk, this soup is silky and creamy, with a bit of fresh tang from the lemon juice.

INGREDIENTS:

2 leeks, white and light green parts only, thinly sliced (about 3 cups)
 1 celery stalk, sliced
 2 garlic cloves, smashed and roughly chopped
 1 large head romaine lettuce
 1 large head escarole
 1 head butter lettuce
 5 cups no-salt-added veggie broth
 2 tablespoons lemon juice
 1 (15-ounce) can white beans, drained and rinsed
 1 cup plain, unsweetened nondairy milk
 ½ cup firmly packed, fresh flat-leaf parsley leaves
 2 tablespoons chopped fresh dill
 Fresh ground black pepper to taste

1. Heat a large Dutch oven over medium heat. Add the leeks and celery and dry sauté until softened, about 4 to 5 minutes, adding splashes of broth as needed to keep the veggies from sticking. Add the garlic and sauté until fragrant, about 30 seconds.
2. Stir in the romaine, escarole, butter lettuce, and broth. Increase the heat to medium-high, and bring to a boil, stirring occasionally. Cover, reduce the heat to low, and simmer until the lettuce leaves are wilted and stems are softened, 8 to 10 minutes. Stir in the lemon juice, white beans, nondairy milk, parsley, and dill. Remove from heat.
3. Blend the soup using an immersion blender or a traditional blender (in batches), processing until smooth. Stir in the pepper.



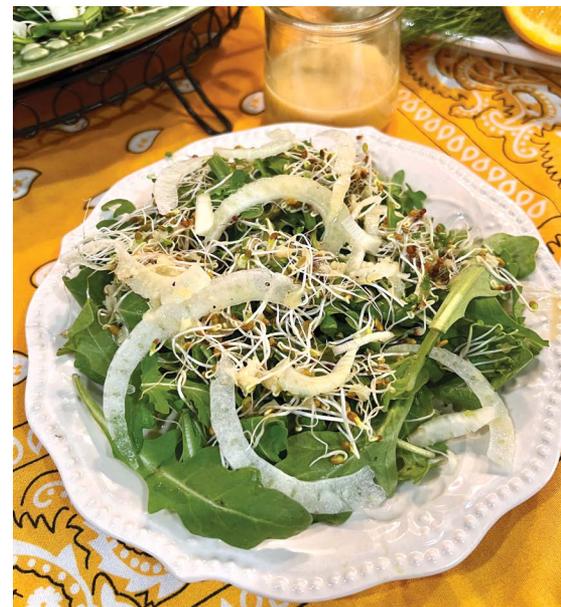
Fennel, Arugula, and Pea Tendril Salad with Orange Vinaigrette

Bright, fresh, peppery, sweet, and crunchy are all ways to describe this quintessentially spring salad. Pea tendrils are the curly thread-like tops of a pea shoot that help the plant climb. In abundance in the spring after peas are first planted, they have a delicate crisp texture with a pea-like flavor. Combined with peppery arugula and the licorice flavor of the fennel, the sweet orange dressing brings this salad together in perfect springtime harmony.

INGREDIENTS:

2 large fennel bulbs, sliced thinly
 Juice of 1½ oranges (about ⅓ cup)
 ½ tablespoon maple or date syrup
 2 tablespoons white wine vinegar
 ½ tablespoon Dijon mustard
 1 garlic clove, minced
 Freshly ground pepper
 4 cups arugula leaves
 2 cups loosely packed pea tendrils

1. Place the thinly sliced fennel into a bowl filled with ice water for 10 minutes.
2. Meanwhile, to a small, lidded jar, add the orange juice, maple or date syrup, vinegar, mustard, garlic, and a few grinds of pepper. Cover and shake vigorously until well-blended; set aside.
3. On a large platter or in a shallow bowl, place the arugula and top it with the pea tendrils. Drain and dry the fennel with a towel or in a salad spinner, and place on top of the greens. Drizzle the dressing over the salad and serve immediately.





Pasta & Peas with Fresh Soy Ricotta

This recipe is a take on a dish my Italian grandmother used to make, but with edamame and fresh snap peas that add interesting textures. The creamy sauce is made using homemade soy ricotta cheese—so easy to make! Choose a small pasta that hugs the edamame, like the mini shell-shaped orecchiette. Finally, adding the aromatics at the end allows them to keep their bright color and flavor while being softened by the residual heat from the pasta.

INGREDIENTS:

1 quart plain, unsweetened soy milk
2½ tablespoons white wine vinegar
(or white vinegar or apple cider vinegar)
1 pound orecchiette, pipette, or other short pasta
12 ounces sugar snap peas, sliced on the bias
1 package (10 ounces) frozen shelled edamame or English peas
½ small red onion, thinly sliced
3 garlic cloves, minced
2 tablespoons flat-leaf parsley leaves, chopped
Juice of 1 lemon
Fresh ground pepper to taste

1. First make the soy ricotta. In a medium saucepan, bring the soy milk to a boil, stirring occasionally to avoid burning.
2. Once the soy milk is boiling, quickly place it into a glass or ceramic bowl and stir in the vinegar. Stir constantly for one full minute and then allow the mixture to sit for 10 minutes. It will start to separate and curdle, which is what you want.
3. Meanwhile, put a strainer over a bowl and line it with a few layers of cheesecloth. Pour the mixture over the cheesecloth, and cover with the sides of the cheesecloth. Weigh the mixture down with a second bowl and a large can from the pantry for at least 30 minutes and up to 2 hours. Remove the weight, open the cheesecloth, and place your ricotta cheese into a covered container in the fridge for up to 5 days.
4. In a large pot of boiling water, cook the pasta according to the package directions. About 3 minutes before the end of the cooking time, add the snap peas and cook for 2 minutes. About a minute before the pasta is finished cooking, add the edamame.
5. After the pasta is cooked, use a ladle to reserve about 1 cup of the cooking water. Drain the pasta and peas and return them to the pot along with the full recipe of the soy ricotta, onions, garlic, parsley, lemon juice, and about ½ cup of the pasta water. Stir until the pasta is well-coated, adding more pasta water as needed to obtain your preference of sauciness. Season with fresh ground pepper.



Roasted Asparagus, Mixed Mushrooms, and Chickpeas over Quinoa with Lemon-Tahini Sauce

One of the earliest spring vegetables, asparagus is a perennial plant that begins to emerge once the soil temperature reaches about 50°F. Look for thin stalks with tightly closed flowers. Roasted with a variety of mushrooms, the earthiness of both is enhanced with the sweetness from the balsamic vinegar. Adding chickpeas and serving everything over quinoa makes what would have been delightful as a side dish into a satisfying main meal.

INGREDIENTS:

1 pound asparagus, trimmed and halved crosswise
8 ounces white button mushrooms, sliced in half
8 ounces cremini mushrooms, sliced in half
3 ounces oyster mushrooms, roughly chopped
3 garlic cloves, minced
1 (15-ounce) can chickpeas, drained
3 tablespoons balsamic vinegar
1 tablespoon fresh thyme leaves
1 cup quinoa
2 cups no-salt-added veggie broth

FOR LEMON-TAHINI SAUCE:

$\frac{1}{4}$ cup tahini
 $\frac{1}{2}$ medium lemon, juiced
 $\frac{3}{4}$ teaspoon dried dill
3 garlic cloves, minced
2–4 tablespoons unsweetened plant-based milk

1. Preheat oven to 450°F. Line a rimmed baking sheet with a silicone baking mat or parchment.
2. To a large bowl add the asparagus, mushrooms, garlic, and chickpeas. Drizzle with the vinegar, sprinkle with the thyme, and toss well to coat. Place the veggies in an even layer on the prepared baking sheet. Roast in preheated oven, stirring occasionally, until charred and tender, about 10–12 minutes.

3. Meanwhile, prepare the quinoa according to the package instructions, substituting broth for the water for additional flavor.
4. For the sauce, add the tahini, lemon juice, dill, garlic, and 2 tablespoons of the milk into a lidded jar. Close the jar and shake vigorously until well-blended. For a thinner consistency, add up to 2 more tablespoons of the milk and shake again.
5. For serving, place the cooked quinoa on a serving plate, top with the roasted vegetables, and drizzle a tablespoon or two of sauce per serving.

Hearts of Palm Fish-like Tacos with Tofu Crema, Slaw, and Avocado Mash

Don't be afraid of the separate components to this dish; they all come together deliciously for a full meal. The ingredients are easy to find, and some are used multiple times. Kelp powder is available in health-food grocery stores or online and gives this dish a briny, from-the-sea flavor. You can whip up the toppings while the hearts of palm roast in the oven. This meal is ready in about 20 minutes and is a staple in my kitchen.

INGREDIENTS:

FOR FILLING:

- 2 (14-ounce) cans hearts of palm, drained
- Juice of half a lime
- ½ teaspoon each of garlic powder, chili powder, cumin, and paprika
- 1 teaspoon kelp powder or granules

FOR TOFU-CUMIN CREMA:

- 1 (14-ounce) container firm tofu, drained
- 1 tablespoon fresh lemon juice
- 1 tablespoon apple cider vinegar
- 1 teaspoon cumin

FOR SLAW:

- 1 medium head green cabbage, shredded
- 3 scallions, chopped
- 1 tablespoon chopped fresh cilantro
- ½ to 1 cup tofu-cumin crema, to taste
- ½ teaspoon garlic powder
- Juice of half a lime (1 tablespoon)
- Fresh ground black pepper, to taste

FOR AVOCADO MASH:

- 3 avocados
- 3 scallions, chopped
- 1 large garlic clove, minced
- 3 tablespoons chopped fresh cilantro
- Pinch of cumin
- Juice of half a lime (1 tablespoon)

FOR SERVING:

- Corn tortillas
- Hot sauce (optional)

1. Preheat oven to 425°F and line a large, rimmed baking sheet with a silicone baking mat or parchment paper. Set aside.
2. Place the hearts of palm into a food processor and pulse 2–3 times, or just enough to break them into large flakes. Place the hearts of palm flakes into a large bowl and gently toss with the lime juice, garlic powder, chili powder, cumin, paprika, and kelp powder until well coated. Spread out on the parchment-lined baking sheet. Bake for 10–12 minutes until lightly browned on the edges.
3. Meanwhile, make the tofu-cumin crema. To a blender or food processor add the tofu, lemon juice, and vinegar. Blend well. Stir in the cumin.
4. Next make the slaw. To a large bowl add the cabbage, scallions, cilantro, about ½ cup of the cumin crema, the lime juice, and the garlic powder. Mix well, adding more crema to taste.
5. Finally, make the avocado mash. Slice the avocados in half, remove the seed, and scoop the flesh into a medium bowl. Add the scallions, garlic, cilantro, cumin, and lime juice, and mash together with a fork.
6. Warm each tortilla over an open flame, under a broiler, or in the oven (still at 425°) for about 30 seconds on each side. To keep warm, place them on a plate and cover with a clean, dry cloth towel or napkin.
7. To assemble the tacos: add about ¼ cup of the hearts of palm to a tortilla, top with slaw, extra crema, and dollop of avocado mash. Splash on a few drops of your favorite hot sauce, if desired.





Strawberry & Chocolate Layered Chia Pudding

Strawberry picking is such a fun family experience. The low-growing strawberry bush is ideal for small fingers and little ones to harvest the sweet, juicy berries. Wherever you get your strawberries, don't let spring pass without enjoying these tasty red gems, here layered with a decadent chocolate pudding and reminiscent of chocolate-covered strawberries. Blending the chia seeds with the milk breaks them up and speeds the setting time.

INGREDIENTS:

1 cup unsweetened plant-based milk

2 tablespoons cocoa powder

3 tablespoons maple syrup or date syrup

½ teaspoon vanilla extract

¼ cup chia seeds

5–7 large fresh strawberries, sliced

1. Add the milk, cocoa powder, maple syrup, vanilla, and chia seeds to a blender and blend. Pour into a small bowl and chill for about 10–15 minutes to set.
2. After the pudding is set, layer the strawberries and pudding into two glass serving containers, starting and ending with the berries.



FELICIA SLATTERY is the bestselling author of *Plant-Based Slow Cooker Cookbook* and *Plant-Based Instant Pot Cookbook* and an award-winning home cook. She has been actively sharing her recipes on social media and her food blog for well over a decade. Since shifting to a completely plant-based diet, she has become a popular guest on plant-based cooking shows, speaks at plant-based events with her fun and energetic cooking demos, and teaches online cooking classes to both those new to plant-based eating and long-time vegans alike. She is the creator of **PlantBasedHomeCooking.com**, and she regularly shares her recipes and stories to help others discover the joy of living a healthy, plant-based lifestyle in her Facebook group and on her YouTube channel, both called *Plant-Based Home Cooking with Felicia Slattery*.

ALL RECIPE PHOTOS BY FELICIA SLATTERY

The Long Road to a Whole-Food, Plant-Based, SOS-Free Diet

SMALL INITIAL CHANGES GROW INTO AN ALL-IN COMMITMENT

by Tim Brown

I was born into a typical American family in March of 1952. My father was a World War II vet and was starting a dental practice, and my mother took care of the household duties. My parents adhered to the standard American diet (SAD) of meat, cheese, and milk. There was also cigarette smoking and alcohol consumption going on in the household. When my father was 56 years old and I was 25, he suffered from chest pains, and it was determined that he had double blockages in his arteries and that bypass surgery was necessary. I went to the Cleveland Clinic the day of the surgery to be with my mom. After we received word that the surgery went well, I followed mom to her house to be with her for the night.

Not long after arriving home, we received a call from the Clinic informing us that my father's heart had stopped during recovery and they had to rush him back into surgery. The thought began running through my head that my mom was going to be a widow with no one to take care of her. Well, my father was subsequently revived and did all right, but I was inspired to research the incident to see if it could have been prevented. I came across a book named *The Save Your Life Diet*, written by David Reuben, MD. The book compared the typical diet of U.S. citizens with the diet of Africans, explaining that the Africans' diet consisted of a lot of raw, natural foods containing high amounts of fiber and noting that the African population suffered little from heart disease, cancer, and other diseases common in the U.S.

I then started adding apples, carrots, bananas, salads, and other fruits and vegetables to my daily SAD diet. This small change proved to make a substantial difference. In 1986, when I was 36 years

old, I was driving to work on a cold, wintry February morning. A driver coming in the opposite direction lost control of his vehicle and struck me head-on, causing my head to slam into the windshield. The doctors determined that I needed to have brain surgery to remove an inflamed cyst attached to my cerebellum. After the surgery, I had subsequent drainage of cerebral fluid from my skull, and the open incision had to be restitched in the emergency room. It was there that I contracted a MRSA infection throughout my cerebral and spinal fluids. Because of this, my speech became garbled, and the doctor, in order to rule out a stroke, ordered that a catheterization be performed. A few weeks later, while in recovery from the meningitis, the doctor informed me that the catheterization showed that my arteries were as clear as a 16-year-old's. This reinforced that the healthy foods I'd been eating were playing a major role in my health.

It was in 1988 that I came across the book *Fit for Life* by Harvey and Marilyn Diamond, which introduced me to Natural Hygiene. The underlying basis of Natural Hygiene is that the body is self-cleaning, self-healing, and self-maintaining. It made so much sense to me that I eliminated all animal products from my diet, becoming the only vegan among my family and friends. This book inspired me to hold strong, saying "No, thank you," to the turkey on Thanksgiving and sticking to the green beans and stuffing. I got a lot of questions, such as the usual "Where do you get enough protein?", and those continue to this day, three decades later.

This diet has allowed me to stay off of all medications. My blood pressure usually is around 110/65. My pulse is around 64. Today I was on the treadmill, riding a



stationary bicycle, and swimming in the pool as part of training for local five-mile run at our church this spring.

In the summer of 2018, I reconnected with my high school girlfriend. Kathy and I were married in 2019, and we support each other in this venture. In the 32 years I've eaten this way, I do not recall anyone else showing any interest in transitioning to a vegan diet; Kathy showed immediate interest and joined in wholeheartedly, losing 45 pounds as a result. She loves cooking from cookbooks written by Dr. Esselstyn, Dr. Fuhrman, and many others. We both attended the National Health Association conference in the summer of 2021 and are transitioning to a whole-food, plant-based diet without salt, oil, or sugar. We usually start with our first meal of the day at noon, a large 50/50 spinach/spring mix salad with kale and arugula. We generally add celery, carrots, broccoli, flaxseeds, an orange, grapes, or blueberries, among many other delicious items, to keep our salads fun and interesting. The dressing we commonly use is balsamic vinegar. We may snack a little in the afternoon with some fruit and/or nuts, and dinner is often vegetable soup or beans, rice, and veggies.

Until the 2021 NHA conference, Kathy and I mostly adhered to this diet because of our health. Since the conference, our concerns have grown to encompass the lives of the poor, tortured, butchered animals and the life of this planet. Now, we feel a deep sorrow whenever we see someone with an animal on their plate. This situation is compelling. The time is now to end the suffering of people, the animals, and the planet, and the National Health Association is a great avenue for getting the word out. 🌱

A Whole New Person

A ONE-MONTH EXPERIMENT BECOMES A LIFE-CHANGING PATH TO WELLNESS

by Rachel Echols

I grew up eating the standard American diet, which I never questioned. I was thin until I got married and had two children. I was always looking for the next best diet, and I tried many. Sometimes I lost weight, but I was always hungry and regained it, plus more. As I got older, I experienced frequent migraines, addictions and cravings, insomnia, snoring, and high cholesterol. I was an emotional eater. If there were sweets anywhere in the house, they never lasted long around me.

I have always worried about getting diabetes. My maternal grandmother had diabetes, and I remember she wasn't allowed to eat fruit. By the time I was 12, my mother had developed diabetes; later both of my sisters and my father also developed it, as well as many of my aunts and uncles. My weight continued to increase, and I wondered how long it would be before I became diabetic. It was never a question of if, but when.

I was raised in a religious household and have always been a spiritual person. I believed that God would not approve of what I had been putting my body through, so I eventually decided to give up on diets until I found a way to lose weight and become healthy in a sustainable way. I knew that God had an answer for me, but until I discovered it, I knew I couldn't continue yo-yo dieting and being disappointed. I kept searching for an answer to my problem and said many heartfelt prayers that a solution would make itself known to me, but otherwise I went on with my life.

After many years of being a stay-at-home mom, I ended up starting pharmacy school

at the age of 40. My weight problem continued to get worse. By the time I graduated and began my career as a pharmacist with a specialty in geriatrics, I had gained another 35 pounds. A visit to my doctor revealed I was obese, with a BMI of 37, and my cholesterol was 260. My doctor sent me home with resources to help me with lifestyle changes, and a warning that I might need to start a statin for my cholesterol. Remarkably, she told me to eat no animal products and to start a whole-food, plant-based diet. I do not remember a doctor ever telling me that before. I had no idea what a whole-food, plant-based diet was, but I was intrigued. I ended up watching *Forks Over Knives*, and I truly had an epiphany while watching it! It sounded like the healthiest thing out there. But was I capable of doing it and making it sustainable? I decided to experiment for one month, and so, I jumped in! I started on January 15, 2019, at 46 years old.

I transitioned from the standard American diet to eating about 95% whole-food, plant-based in around three days. I ate lots of side dishes (without butter and dairy) and skipped the meat. I ate raw vegetables, whole-grain bread, and fresh fruit. I did a lot of research and quickly found how to replace meat and cheese in traditional dishes. Eliminating oil took some time. The first few weeks I had to white-knuckle my way through cravings and addictions, so I ate a lot, which helped keep me satisfied. In the first month, I lost 14 pounds and felt better than I had in a very long time. My migraines lessened and my sleep improved. At the end of that month, I knew I could never go back to eating the way I used to!



The first few weeks I had to white-knuckle my way through cravings and addictions, so I ate a lot, which helped keep me satisfied. In the first month, I lost 14 pounds and felt better than I had in a very long time.

By September 2019, I had lost 50 pounds and was feeling like a whole new person! I continued to read and study. I read *The Starch Solution* by John McDougall, *How to Prevent and Reverse Heart Disease* by Dr. Caldwell Esselstyn, and Dr. Neal Barnard's *Program for Reversing Diabetes*. I collected recipes and was learning how to be a pretty good plant-based cook.

That fall my weight plateaued. I was still at least 20 pounds overweight. After learning about calorie density, I started on Dr. John McDougall's Maximum Weight Loss Program in January 2020. I joined the McDougall forums, where they have a Maximum Weight Loss thread with helpful moderators. Getting a little stricter with my



diet seemed hard at first, but participating in the forums helped me tremendously. I reported my compliance to the program guidelines plus my weekly weight loss on Fridays. The accountability I found there helped me immeasurably, and I began losing weight again. I did this consistently for 10 months, losing another 30+ pounds, at which time I was 10 pounds below my goal.

As of this writing, I have been living this lifestyle for three years. I am down a total of 90 pounds from my highest weight, and my cholesterol has dropped 105 points to 155. My A1c dropped from 5.4 to 4.8, and I no longer worry about getting diabetes. My BMI has been holding steady at 23 for the past 18 months. I exercise five to six days a week, doing both cardio and strength training. I love my daily five-mile walks and hiking in the woods with my camera. This past year I have seen my fitness increase greatly. I even achieved a 10-minute plank in 2021! My weight-loss story was picked up by a national magazine, and I had a photo shoot with a professional photographer and makeup artist.

Every single day is an opportunity to eat well and get stronger and more fit. I do not battle food addictions and emotional eating any longer. This lifestyle has somehow cured me of all the problems with food that I used



to struggle with. I love trying new recipes and experimenting in the kitchen and have started growing some of my own food.

As happens to most people who discover the amazing healing effects of a whole-food, plant-based lifestyle, I want to share the message. I work full-time and am very busy, but I love to use social media in spare moments every day to show how a plant-based lifestyle can change your health and help the environment and the animals, all while being colorful and delicious. I am active in many Facebook groups, like Forks Over Knives, Well Your World, The Jaroudi Family, McDougall Success Stories, etc. I try to answer people's questions and encourage them. On my personal Facebook page, I have a public photo album where I post pictures of the food I'm eating with the recipes attached. I post the link to this album on social media pages when people ask. It shows a variety of healthy, colorful, and delicious foods. I also post weight-loss tips, information about calorie density, stories from people who have regained their lives with this lifestyle, items about health and wellness, and inspirational quotes. Both friends and strangers send me messages and ask me questions. People who have known me for years have told me that I am glowing, reversing aging, or just look

amazing. They always want to know what I've been doing! I am influencing many to eat healthier, even when they aren't willing to consider a complete lifestyle change, and a few of my family members and friends have started a plant-based diet. I enjoy busting myths about this lifestyle and showing people how health-promoting and sustainable it can be.

After following McDougall's Maximum Weight Loss program for so many months, as well as living in a household where I am the only plant-based eater, I feel that I have a special understanding of the challenges people face when trying to start this healthy lifestyle or lose weight. There are a few nuances to calorie density that most people don't understand and which I enjoy sharing. I believe that making small changes and sticking with them every day produces incredible results down the road. I continue to read and study every chance I get. I have discovered that sticking with the lifestyle 100% is easier than anything less. The outward changes in me reflect an inner change in my attitude, dedication, confidence, and ability to tackle problems in all areas of my life. This seems to be a common theme: others have told me they, too, are more at peace, more compassionate, and more mindful after changing to a healthy diet.

In June 2022, I am looking forward to attending my first NHA conference. I am lucky that the conference is held in my home state of Ohio. I have been an NHA member for a year and always enjoy the *Health Science* magazines. They are a tool I use to continue learning every day. I can't wait to meet all the amazing people involved with the NHA and to continue to be inspired.

If anyone had told me five years ago that I would eventually eliminate all animal and processed foods from my diet, I would not have believed them. For me, it is a testament of the power of the human spirit and our ability to change and excel. Although some people may think that adopting this lifestyle is difficult, I do not feel any deprivation whatsoever. I can honestly say I love my life and enjoy my food more than ever before. My success has motivated me to help others, so I started a plant-based support group. If you'd like to join with others for encouragement, inspiration, and motivation, please join us on Facebook at Rachel's Plant-Powered Lifestyle Support Group. 🌱

Dr. Frank Sabatino Joins the NHA Staff as the New Director of Health Education

A PERSONAL MESSAGE FROM DR. FRANK SABATINO

As I sit in quiet reflection writing this piece, I am in awe of the indelible impact hygienic living and this organization have made on my personal and professional life for over 50 years. I am excited, delighted, and honored to start another chapter of my life in this unique partnership as the Director of Health Education for the NHA. I want to thank the directors and board of the association for their support and vote of confidence.

This opportunity brings me full circle from the time I first got turned on to natural hygiene as a teenager while a premed student at City College in New York City and had my mind blown and my paradigm shifted by Herbert Shelton's *Natural Hygiene: Man's Pristine Way of Life*. My mentor at the time, "Uncle Luigi," was an insurance salesman in the Bronx who had a personal correspondence with Shelton and a library of books by many of the hygienic and health pioneers of the past. This became my library and the beginning of a journey that has shaped my vision of life and healthcare ever since. At that time, I began writing articles on life and health for a neighborhood paper Louie and I published in the Bronx, and I remember like it was yesterday how proud I was, as a teenaged fledgling hygienist, when Shelton published several of my articles in his *Hygienic Review*. His byline became a mantra of my own life and scientific work, "Let us have the truth, though the heavens may fall."

This organization has been my heart for all of my professional life. From its early days as the American Natural Hygiene Society to the NHA today, I have always been impressed, from my first connection with the Society 50 years ago to today, by the incredible people like Mark and Wanda Huberman who direct it and by its steadfast alignment with health truth. The NHA has maintained an unwavering commitment to offering health information

that just improves people's lives, pure and simple, while resisting the easy profit that can come from questionable products and services. It has nothing to sell but the health freedom and personal autonomy that is the rightful legacy for all. The NHA is grounded in the simple mantra that health is built, not bought, and that by respecting the wisdom of the body as you embrace the hygienic biological requirements of life, health flows like water flowing downhill. Health is not a mystery; it is not a commodity that can be bought and sold. It is the natural outcome of the normal functions of life.

I am extremely grateful to have this opportunity to share and articulate timeless hygienic wisdom while paying homage to pioneers of the past and bringing our profound message into a remarkable modern context. Time and time again, it proves abundantly clear that the best science has to offer continues to provide a strong evidence base reinforcing our nutrition and lifestyle message. My goal is to support and promote the NHA as the vanguard for this evidence-based, compassionate, plant-exclusive lifestyle modification.

This is a passion project for me. It gives me a chance, in my own small way, to give back to an organization that I love and that has helped so many. This is an incredible opportunity and a privilege for me to continue to provide with the NHA the highest quality educational information, on our website and in every effective media and technological platform available, to bridge the wisdom of the past with the most revolutionary science and technology of the present and future in order to nurture the life and health of all people, all species, and our beloved planet itself.

Yours in health,
Frank Sabatino, DC, PhD



As Seen on YouTube



Vegan Linked recently interviewed our very own Mark Huberman! Be sure to check out the YouTube interview by Vegan Linked founder and NHA member Jeff Adams, which already has a remarkable 75,000+ views.

To watch, scan this QR code with your phone, or go to bit.ly/MarkHuberman



Hi Mark,

Thank you for creating and growing this amazing organization! I fully delve into each *Health Science* issue and enjoy constantly learning new things. As a busy mom of three young and teen children, I'm constantly working to improve my family's health. I hope to be able to take advantage of more of the resources you offer!

Melanie Joseph
Cranbury, NJ

Dear Mark,

I always look forward to receiving my *Health Science*. Each issue seems superior to the previous one. I like the new paper and format. I have magazines dating back to 1989, and they are very valuable to me. Thanks to you and Wanda for all that you do.

Pam West
Ft. Myers, FL

Hi Mark,

You guys have really made the magazine professional and extremely helpful to all of us trying to live this lifestyle! I can't find words enough to thank you!

Jan Richards
Olympia, WA

Mark,

I love reading *Health Science* magazine! Please keep 'em coming!!

Dean Fraley
Camarillo, CA

Hi Mark!

Jill and I just finished eating the Spinach-Arugula Salad with Pears, Pomegranates, Candied Pecans, and Citrus Vinaigrette. Wow! It was delicious! We're looking forward to the June NHA meeting!

John & Jill Gandy
Atlanta, GA

Hi Mark,

Thank you for sending us the Winter issue of the magazine. Bill and I both read it from cover to cover. We loved that there were recipes in there, too! We plan on signing up for the NHA conference soon.

Bill and Beth Mookhoek
Marietta, GA

Hello Mark,

Thank you so much for sending the Fall and Winter issues of *Health Science* to me so quickly. I received them yesterday and began enjoying the magazine right away!

The interview you did with Dr. Laurie Marbas was very interesting. I will be looking on her podcast "Healthy Human Revolution" to learn more about mindful eating and overcoming cravings.

Also, thank you for the interviews and the testimonies in your magazine. Actually, I enjoy all of the magazine and will use it to continue to be inspired to stay the course!

Laurie Brubaker
East Petersburg, PA

Hi Mark,

I like the new website as well as the new interview series—so much great information!

Sincerely,

Mila Collett
Naples, FL

Hi Mark,

Thank you! Love the magazine! Very much appreciate all your work!!!

Maggie Casey
Mountain Rock, AL

Dear Mark,

I just want to tell you that *Health Science* magazine is the best ever! I am at a loss for words as I cannot tell you how to make it any better. It is truly a masterpiece of natural health literature. Many thanks for all you do.

David C. Eschan
Florence, Kentucky

Hi Mark,

I just received *Health Science* magazine. I'm anxious to try the Charred Cannellini Cauliflower with Chimichurri recipe in addition to reading the wonderful articles!

Laurie Barnett
Bluffton, SC 🌱

SUPPORTING THE MESSAGE OF THE
NATIONAL HEALTH ASSOCIATION

Meet our Newest Life Members!

When you become a Life Member of the NHA by making a single gift of \$1,000 or by being a Century Club Member for 10 years at \$100 per year, you are making a strong commitment and vital contribution to the long-term success of the NHA. In this issue we are honored to introduce you to our newest Life Members:



Getu Assefa, MD
Owensboro, KY



Anne Osborne
Glasshouse Mountains, QLD, AU



Sherry Uribe
Virginia Beach, VA

SUPPORTING THE MESSAGE OF THE NATIONAL HEALTH ASSOCIATION

Meet our Newest Century Club Members!

Century Club Members are another honored group of NHA members who help us sustain our educational mission by paying \$100 per year.



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Jim Smith*
Okatie, SC



Neil Smith, MD
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Del Sroufe
Columbus, OH



Zina Znayenko-Miller
Raleigh, NC

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- Conrad Case**, Reno, NV
- Steven Gelwan**, New York, NY
- Karen Lahti**, Mesa, AZ
- Steve & Janice Lotz**, Mount Dora, FL
- David Patterson**, Carmel, IN
- Randy Reddemann**, Mukwonago, WI
- Julie Roberts**, Castro Valley, CA
- Bonnie Venn**, Marina, CA

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- Dale & Dotty Fox
- Gary Giovino
- Ronda Hartman
- Drs. Anthony & Jean Lim
- Ann Sarkes
- Dan & Bernadette Stech
- John Tweed

Please consider stepping forward to become one of our next Life or Century Club Members!

Give a Gift Membership in the NHA!

More and more members are continuing to give the gift of health by gifting memberships in the NHA to family and friends, primarily so they can receive a subscription to this magazine that they so value. **And now, giving the gift of membership is easier than ever to do on our new website.**

Special Thanks to Our Donors!

President Mark Huberman and the Board of the NHA wish to express special thanks to the members who responded to our annual *Keep Health Science a Print Publication* appeal. (Donations received after this issue went to print will be acknowledged in the next issue.)

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Tim & Kathy Brown
Dr. Bob & Elise Feinberg
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Carolyn Starkey
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Welcome New Members!

The NHA continues to experience amazing growth!

We are thrilled to report that members continue to stream into the NHA as word spreads about the extraordinary quality of this publication and the value of joining our Association. As you will see below, just since the last issue, 430 new people have become members of the NHA from all over the U.S. and around the world!

Ulana Abramson, Lawrence, NY	Kendra Bonnett, Milbridge, ME	Beth Craig, Kelso, WA
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Kathy Heilman, Milltown, NJ
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ERRATUM:
 Tiffany Esser is a Certified Personal Trainer, not a physical therapist as stated in the Winter issue's Table of Contents. We regret the error.

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