## Is a Vegan Diet Good for Your Heart?

A vegan diet did better than an American Heart Association regimen in reducing inflammation during a clinical trial but doctors say more research is needed



From left, John Larigakis, a research coordinator, interventional cardiologists Binita Shah and James Slater and dietitian Lisa Ganguzza, seen last month at NYU Langone Health, where they worked on a clinical trial. PHOTO: ADRIENNE GRUNWALD FOR THE WALL STREET JOURNAL

By

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Kathy Fariello loves Italian food, from fried meat balls to *pizza rustica* with ham and salami, and her favorite, mozzarella cheese wrapped in prosciutto.

But when the 69-year-old widow, who suffers from coronary artery disease, joined a clinical trial sponsored by NYU Langone Health to test a vegan diet on heart patients, she had to say *ciao* to all these dishes.

In came the kidney beans and dairy-free imitation cheese.

Out went the mozzarella and cold cuts. "All of that, forget about it," says Mrs. Fariello, who lives on Staten Island in New York City. Yet she was determined to follow the diet, convinced it could

save her. "I have four beautiful grandchildren, I will do whatever I have to do," says Mrs. Fariello, who had a heart attack a couple of years ago.



Kathy Fariello, of Staten Island, N.Y., gave up some favorite foods and tried a vegan diet when taking part in NYU Langone Health's clinical trial. PHOTO: SASHA MASLOV FOR THE WALL STREET JOURNAL

Results from the NYU Langone trial, which were presented last month at a meeting of the American Heart Association, found that a vegan diet was better at lowering one risk factor for heart attacks than the meal plan recommended by the AHA itself.

Mrs. Fariello was one of 100 patients who took part in the randomized clinical trial that divided patients with heart disease into two groups: One observed a vegan diet and the other followed the diet of the American Heart Association, viewed by some as the gold standard.

Vegans typically embrace plant-based nutrition. They don't eat animal-based foods such as meat or fish, and shun eggs and dairy products such as milk or cheese. The AHA diet allows modest amounts of lean meat, including sirloin and pork chops, chicken and fish, along with eggs and low-fat dairy products.

Mrs. Fariello stuck to the vegan plan and "never cheated." She learned to enjoy fake cheese and for protein, she prepared lots of bean salads. But she drew the line at tofu, dismissing it as "rubbery."

James Slater, the senior NYU Langone interventional cardiologist who helped oversee the trial, said he wanted it to help demonstrate that a vegan diet might be "a powerful form of therapy" for people with coronary artery disease.

"Despite all of our amazing pharmacology, we haven't exactly cornered this disease," says Dr. Slater, a professor of medicine at NYU School of Medicine, citing the fact that heart disease

remains the leading cause of death for Americans. "We have to be thinking along other lines" beyond medication and procedures, he says.

But when he and his colleagues launched the diet trial three years ago, they found few takers. The doctors offered two months of free groceries delivered to each participant's home, oversight by a dietitian and monitoring by medical experts.



Interventional cardiologists Binita Shah and James Slater at NYU Langone Health on Nov. 30, 2017. PHOTO: ADRIENNE GRUNWALD FOR THE WALL STREET JOURNAL

Clinical staff reached out to more than 700 people to get the needed 100 for the trial. "It had absolutely no risk, we give you the food, what have you got to lose?" he recalled thinking. "And we only got 14% [saying yes], which was unbelievable to me."

The trial, which was supposed to take two years, ended up running three years, because of the difficulty in enrolling patients, says Binita Shah, the interventional cardiologist who was the principal investigator. Begun in March 2014 it ended in February 2017. Some patients refused for fear they would be assigned to the vegan regimen. "If I don't have meat," one declared, "I will die."

Then there were objections raised by purists, who spotted graham crackers and other processed foods on sample menus of what was labeled a vegan and whole-foods diet. Dr. Shah didn't waver. "A graham cracker was allowed," she says, as were waffles and pretzels. Organizers dropped the claim that it was a whole-foods diet.

There were other rough patches. One patient on the vegan diet withdrew because he was hungry at night and kept raiding the refrigerator. Still, there were only two dropouts from the 100, Dr. Shah says, both from the vegan group.

She unveiled the results at the American Heart Association's Scientific Sessions in November. The NYU Langone team stated that "a vegan diet significantly reduced systemic inflammation and improved lipid profiles in patients" with coronary artery disease while "an AHA recommended diet did not."

Inflammation is an important risk factor for heart patients, and some doctors contend that reducing it may help stave off events such as heart attacks.

According to Dr. Shah, the group on the vegan diet saw a median decrease of 28% in an inflammation marker known as "high sensitive C-reactive protein"; the median decrease in the heart association diet group was 7%.

Some researchers aren't persuaded by the NYU Langone study. "What we care about is not what happens to these markers, but can you reduce the risk of cardiovascular death and heart attacks and strokes?" says Steven Nissen, chairman of cardiovascular medicine at the Cleveland Clinic, who believes the trial's findings aren't "statistically significant."

"There is this cult around the vegan diet that I object to," Dr. Nissen says. "People fervently believe a vegan diet will erase your heart [disease] but we can't tell the public to go out and have this diet based on flimsy science." To prove the vegan diet's efficacy would take more than NYU Langone's 100-person trial, he says.

"These are very interesting preliminary findings," Christopher Gardner, a professor of medicine at Stanford University in Palo Alto, Calif., says of the NYU Langone study. "This helps support that vegan can be a healthy choice for some," he says, but more in-depth studies are needed. Dr. Gardner, a vegan and a former member of the nutrition committee of the American Heart Association, says that the NYU findings don't undermine the AHA diet.

Jo Ann Carson, chairman of the AHA's nutrition committee, recognized the work that went into the NYU Langone trial but said its findings didn't shake her belief in the more moderate approach the association endorses.

"Does this mean we should give up our chicken and skirt steak? I would say wait a minute," says Dr. Carson, a professor of clinical nutrition at the University of Texas Southwestern Medical Center. "They have shown in the short term, in the eight weeks [of the trial], that the inflammatory marker was lower, but I wouldn't call that an amazing difference."

Dr. Shah acknowledges that what she and her team conducted was a "pilot study" and that a larger trial is needed to follow patients on a vegan diet and find out "will they live longer and have fewer heart attacks." Such a study could take years to complete and cost millions of dollars.

Realistically, says Dr. Slater, "it will take 10 years and meanwhile you are supposed to advise your patients" now on what to eat.

The study noted that both diets offered benefits such as weight loss. Mrs. Fariello says she went to 150 pounds from 172 and felt "terrific." These days she is a vegan two days a week, and has gone back to fried meat balls, but only once a month "when my daughters-in-law make them."

## ON THE MENU

Sample daily meals for the vegan-diet group and the American Heart Association group in the NYU Langone trial. Participants, who also were allowed three prescribed snacks daily, could follow the menus precisely or mix and match within their group.

VEGAN DIET

**BREAKFAST:** tofu scramble (1 serving), avocado (2 tbsp); whole wheat bread (1 slice), fresh fruit (1 small or  $\frac{1}{2}$  cup), soy or almond milk B-12 fortified (1 cup), juice ( $\frac{1}{2}$  cup)

LUNCH: vegan chili (1 serving), whole wheat roll (1)

DINNER: smothered black bean sweet potato, tossed salad

AHA DIET

**BREAKFAST:** scrambled egg (1), avocado (2 tbsp), whole wheat bread (1 slice), fresh fruit (1 small or  $\frac{1}{2}$  cup), 1% milk (1 cup), juice ( $\frac{1}{2}$  cup)

LUNCH: Asian quinoa salad (1 serving), fresh fruit (1 small or ½ cup)

**DINNER:** skirt steak with vegetables (1 serving), brown rice (½ cup)

Source: NYU Langone Health and NYU Steinhardt, Department of Nutrition & Food Studies

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