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PHYS ED | Gretchen Reynolds

Can Athletes Benefit From a Vegan Diet?

With the publication this month of "Eat and Run: My Unlikely Journey to Ultramarathon Greatness," by the vegan distance runner Scott Jurek, vegan diets have become a wildly popular topic on running-related Web sites. But is going totally meatless and, as in Mr. Jurek's case, dairy-free advisable for other serious athletes, or for the rest of us who just want to be healthy and fit?

I talked with three experts about why, and whether, those of us who are active should consider giving up meat or more. None of the experts are vegan, though two are vegetarian: David C. Nieman, a professor of health and exercise science at Appalachian State University, who's run 58 marathons or ultramarathons and has studied runners at extreme events like the Western States Endurance Run; and D. Enette Larson-Meyer, an associate professor of human nutrition at the University of Wyoming, as well as a longtime competitive athlete and author of "Vegetarian Sports Nutrition."

A third expert, Nancy Clark, who describes herself as "two-thirds vegetarian" she has meat only at dinner — is a sports nutrition expert in Massachusetts and the author of "Nancy Clark's Food Guide for Marathoners."

Will a vegan diet make someone a better athlete?

Nancy Clark: I was just at the American College of Sports Medicine annual meeting in San Francisco, and there was a presentation about vegetarian athletes that basically concluded that there's not enough research to know how vegetarian — let alone vegan diets affect athletes. But anecdotally, people do fine. It's possible that some vegan athletes are low on creatine, a nutrient that you get only from meat and that can help during short bouts of intense exercise like sprinting, though supplementation isn't necessary. My feeling is that hard training trumps everything. Diet, if it's healthy, isn't going to make that much difference.

Is it hard for someone who's training vigorously to get enough protein on a vegan diet?

David C. Nieman: The foods that vegans like Scott Jurek avoid, like dairy products and eggs, are the easy ways to get protein in a plant-based diet, obviously. But you still have grains, nuts, soy. Eat enough of that and you'll be fine. The one issue is vitamin B12, which is found only in meat; B12 is important for endurance athletes, since it affects red blood cell production. But many cereals and soy milks are fortified with B12 now, or you can take supplements.

Ms. Clark: You do have to be diligent about protein intake if you're vegan. I have clients, especially women, who say, 'Oh, I put a few chickpeas in my salad.' But that's not going to do it. Women need about 60 to 90 grams of protein a day, and athletes are on the high end of that. That means you have to eat cupfuls of chickpeas. And you can't eat a quarter



of that cake of tofu. You need to eat the whole thing. It's not that there aren't good sources of vegan protein. But it's not as bioavailable as meat. So you need to have more.

Is it true that you can combine plant proteins throughout the day to create complete proteins? You don't have to eat them all at the same meal?

D. Enette Larson-Meyer: Years ago, studies in rats showed that if they were fed only one source of protein, like corn, all day, they did not get sufficient amounts of essential amino acids. From that, the idea grew that you had to combine proteins at the same meal. But since then, other studies have found that if you get multiple sources of protein throughout the day, that's fine. Have rice at breakfast and beans at lunch or dinner.

Is it hard for someone who's training vigorously to get enough calories on a vegan diet?

Ms. Clark: It's not hard at all. My favorite weight gain or weight maintenance advice is to drink juice. Grape juice, pomegranate juice, tart cherry juice. They have plenty of calories, and if you pick the right juice, especially pomegranate or tart cherry juice, it looks as if they can help with recovery. Tart cherry juice was a very popular topic at the recent American College of Sports Medicine meeting. It's a potent beverage, in terms of speeding recovery. And it's vegan.

Will vegan or even vegetarian diets help you to lose weight?

Dr. Nieman: Short answer: No. Vegetarians tend to weigh 6 to 10 pounds less than meat eaters. But that's probably due to selfselection bias. Many vegetarians are more health conscious to start with. You can overeat on a plant-based diet. There are obese vegetarians. Junk food can be vegetarian. You still have to make healthy food choices, whatever your diet.

Because of Scott Jurek's book and others, there's some sense out there that athletes should become vegans. Do you agree?

Dr. Nieman: I know Scott. He's been a subject in some of our studies at the Western States 100. He's a great guy — opinionated, sure, but he's been very successful as a racer, so he can have opinions. But runners always think they have inside information on nutrition. They don't. It's my duty as a scientist to separate out the hype from what's been validated.

What we know is that when it comes to endurance performance, it's all about the fuel, primarily carbohydrates, and you can get sufficient carbohydrates whether you're a vegetarian or a meat eater — unless you follow a really goofy diet, which some people do. It's possible to eat a lousy vegetarian diet, just as you as can eat a lousy meatbased diet.

So is there any compelling reason for those of us who are active but not necessarily running ultramarathons to decide to become vegan?

Dr. Larson-Meyer: In general, vegetarians are healthier, with less risk for heart disease and obesity, although there are obese vegetarians. Many people tell me after they start a vegetarian diet that they feel better, but then again, many of them - and I believe this was the case with Scott Jurek — were eating a pretty poor diet before, so of course they feel better. They could have switched to a healthier meat-based diet and they would probably have felt better.

I like to tell people that if we got most Americans to eat one less serving of meat every day, there would be far greater impact from that, in terms of improving overall public health and the health of the planet, than convincing a tiny group of endurance athletes to go full vegan.

Can Athletes Perform Well on a Vegan Diet?

By GRETCHEN REYNOLDS

With the publication this month of <u>"Eat and Run: My Unlikely Journey to Ultramarathon Greatness,"</u> by the vegan distance runner Scott Jurek, vegan diets have become a wildly popular topic on running-related Web sites. But is going totally meatless and, as in Mr. Jurek's case, dairy-free advisable for other serious athletes, or for the rest of us who just want to be healthy and fit?

To find out, I talked with three experts about why, and whether, those of us who are active should consider giving up meat or more. None of the experts are themselves vegan, though two are vegetarian: David C. Nieman, a professor of health and exercise science at Appalachian State University, who's run 58 marathons or ultramarathons and has studied runners at extreme events; and D. Enette Larson-Meyer, an associate professor of human nutrition at the University of Wyoming, as well as a longtime competitive athlete and author of "Vegetarian Sports Nutrition." A third expert, Nancy Clark, who describes herself as "two-thirds vegetarian" -- she doesn't have meat at breakfast or lunch, but does at dinner -- is a sports nutrition expert in Massachusetts and the author of "Nancy Clark's Food Guide for Marathoners."

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Gretchen Reynolds is the author of <u>"The First 20 Minutes: Surprising Science Reveals How We Can Exercise Better, Train Smarter, Live Longer"</u> (Hudson Street Press, 2012).

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The Path to a Healthy Vegan Diet

re you considering a vegan life-A style? Not so long ago, "going vegan" was a difficult path, filled with challenges and, to a certain extent, isolation. Today, being vegan is "cool," thanks to celebrities like Alicia Silverstone, who wrote a bestselling book on the vegan diet called "The Kind Diet," and Oprah Winfrey, who took a oneweek vegan challenge on her television show earlier this year. An estimated 1.4 percent of Americans count themselves vegans, defined as eating a diet that excludes meat, poultry, fish and seafood, dairy products, and eggs. By many accounts it's a growing trend.

It doesn't hurt that health experts are coming forward with scientific evi-

dence promoting the benefits of diets that are based on plants, rather than animals. At the American Dietetic Association Food & Nutrition Conference & Expo, held on November 9, 2010 in Boston, Karmeen Kulkarni, M.S., R.D., Director of Scientific Affairs at Abbott Diabetes Care, presented the latest research on plant-based diets. "Results of an evidence-based review showed that plant-based diets reduced the risk of ischemia, hypertension and type 2 diabetes; lowered LDL and blood pressure, reduced body mass, and reduced overall cancer rate. Risk of chronic disease reduced due to decreased intake of saturated fat and cholesterol, and increased intake of vegetables with more

fiber and phytochemicals, nuts and soy proteins," said Kulkarni. Vegetarian diets even got a plug in the 2010 Dietary Guidelines (U.S. Department of Agriculture), which stated that vegetarian eating patterns, including vegan diets, may contribute to positive health outcomes such as lower levels of obesity, reduced risk of cardiovascular disease and lower total mortality.

If you've decided to go vegan, whether for health or philosophical reasons, it's important to put a little thought into your new strategy. While it's getting easier to find vegan products in supermarkets, it's important to ensure that you get a balanced diet that meets all of your nutritional needs. Check out *EN*'s Nine Vegan Diet Rules to make the most of your diet.

-Sharon Palmer, R.D.

EN's Nine Vegan Diet Rules

If you've chosen to go vegan, follow our top rules to make sure your diet is complete.

Protein perspective. It's a common misperception that it's impossible to get adequate protein on a vegan diet. Yet nearly all foods contain some protein, except for alcohol, sugar and fat. If you eat a balanced diet with many plant foods and grains, you're already getting good sources of protein. To ensure that you're meeting your protein needs, shoot for two servings of nuts and seeds like walnuts, peanuts, and sunflower seeds, and three servings of legumes and soy such as beans, lentils, peas and tofu, every day.

2 Vitamin B12 boost. This important vitamin is found in animal products, so you need to either consume vitamin B12-fortified foods or take a supplement to meet your needs.

3 Vitamin D-fense. It's a challenge for vegans to get adequate levels of the important nutrient vitamin D. That's why you should try to get 10 minutes of sunlight a day, consume vitamin-D fortified foods such as soy or rice

milk, breakfast cereal, or orange juice; or take a vitamin D supplement.

4 Calcium counts. Even if you forfeit meat and dairy, your body still needs calcium. Focus on calcium-fortified products like juices and soy milk, and calcium-rich foods like dark green vegetables, almonds, and broccoli; and consider taking a calcium supplement.

5 Pump iron. You don't need animal products to get iron. Make sure you include plant iron sources like spinach, kidney beans, lentils and whole wheat bread in your diet, and add a vitamin C source to increase your absorption of iron.

60mega-3 bonus. If you're skipping out on fish, you may not be reaping the nutritional rewards of omega-3 fatty acids. So, get your omega-3s by eating about two servings a day of foods rich in plant omega-3s, such as walnuts, canola oil, soy products, and hemp.

7 Find zinc. You can easily meet your zinc needs, as long as you include whole grains, legumes, green vegetables, and nuts in your diet.

Make your calories count. When you're eating vegan, you need to make sure your food choices really count so that you meet all of your protein, vitamin and mineral needs. Instead of falling for vegan "junk foods," available in grocery stores that supply mostly refined grains and sugars, keep your diet primarily whole foods. Seek a variety of natural plant foods such as fruits, vegetables, whole grains, nuts and seeds. And don't forget to change it up; by varying the types of plant foods you eat every day you will ensure a diverse supply of important nutrients.

9 The Vegetarian Food Pyramid. Make planning easier by downloading The Vegetarian Food Pyramid at www.vegetariannutrition.org—it will make planning a cinch.

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