Doctors need more training in nutrition if they are to prevent disease.

BY GAYLE GOLDEN
The continuing medical education lesson was spread out before a dozen or so doctors at Mayo Clinic’s Dan Abraham Healthy Living Center one recent summer day: grilled eggplant, lightly marinated beets, salad, whole grains and salmon. Their assignment? Dig into the lunchtime spread while listening to an admonition they’ve no doubt heard since childhood. “It’s something your mother would say: ‘Eat your vegetables,’” Donald Hensrud, MD, MPH, told the group. “But there’s really a lot of science behind that idea.”

From there, Hensrud moved to a swift-paced presentation of recent studies showing how a diet consisting of many of the same foods piled on the doctors’ plates has been linked to reduced rates of heart disease, cancer, diabetes and even overall mortality. To reinforce that message, the doctors attending the program would chop and sauté a meal together in the center’s expansive teaching kitchen.

As basic as it seems, that lesson about food addresses what many say is a persistent problem in medicine—doctors’ lack of knowledge about nutrition, particularly of the scientific understanding gained during the past two decades. Physicians say they don’t know how to talk to patients about nutrition, even though it’s clear that what we eat can lead to common conditions, including diabetes and obesity, that are predicted to seriously burden health care in coming decades. And when patients ask about nutritional fads marketed to them in grocery store aisles or online, doctors aren’t always prepared with answers.

“The public is very interested in nutrition, but there aren’t as many people on the medical side of things who are available and informed and helpful to provide people with good advice instead of what’s on the Internet,” Hensrud says.

Missing ingredient
Recognizing that medical schools weren’t doing enough on nutrition, the National Research Council in 1985 recom-
National surveys have indeed shown that medical students and residents don’t feel confident providing patients with practical information about nutrition. “I think there are enough of these reports that tell us we are missing something,” says Kelly M. Adams, MPH, RD, lead author of the study on medical schools and a researcher with the Nutrition in Medicine Project at the University of North Carolina at Chapel Hill.

University of Minnesota medical student, kicked off a presentation to faculty using slides of standard first-year nutrition lectures, which featured arrows, letters, abbreviations all swirling from an image of the liver. The audience groaned. “I groaned myself,” Decker says, calling that educational approach to nutrition “a huge disservice” that doesn’t translate into patient conversations.

Elk River family physician Kelly Kinnan, MD, who also attended the Mayo program, said she would love to have talking points to share with patients whose conditions don’t always warrant a visit with a nutritionist. “I have a very brief time with them,” she says. “I need to explain this stuff quickly and clearly in a motivating way.”

Despite these challenges, physicians can encourage good nutrition. Here are tips from some experts including Harvard School of Medicine’s David Eisenberg, MD; Mayo Clinic’s Hensrud and Warren Thompson, MD; Twin Cities integrative medicine specialist Greg Plotnikoff, MD; HealthPartners’ Steven Radosevich, MD, and Michael Stiffman, MD; and the University of Minnesota’s Kate (Venable) Shafto, MD.

1 **Screen for nutrition issues.** Have all patients answer pre-visit screening questions to trigger deeper discussions about nutrition. These can include: How many servings of fruits and vegetables do you eat a day? How often do you drink soda or sugary beverages? Do you know the difference between whole and refined grains?

2 **Have regular nutrition check-ins.** Always address nutrition during physical exams. Do a dietary history for all patients who have had cardiac procedures or are at risk for diabetes, high cholesterol or high blood pressure.

Even with extensive knowledge about nutrition and cooking, doctors still face myriad challenges when talking to patients about food and health. One is how to counter the misperception that eating healthy is expensive. In many cases, that’s more perception than reality. “I think there’s a knowledge gap. Some healthy food is costly, but some of it is not,” says Jean Fox, MD, a gastroenterologist at Mayo Clinic who argues that rice, legumes and many vegetables are actually quite cheap. Fox, who attended a CME program on food and nutrition at Mayo in June, also contends that patients need training. “If you don’t know what to do with kale … and if you don’t prepare it well, it tastes really bad.”

Food fads are another area of confusion. During the class, Fox and others had a chance to ask the instructor, Donald Hensrud, MD, MPH, how to answer patients’ questions regarding the heavily marketed gluten-free trend and the touted benefits of coconut oil or nutritional supplements. But by far the biggest problem for doctors? Finding time to discuss nutrition with patients during increasingly short visits and eat well themselves. “I can bring an orange to work, but I don’t have time to wash it, peel it and eat it between patients,” Wendy Bongers, MD, a Faribault family physician, confessed to peers at the Mayo CME program.
The reason the schools fall short often comes down to resources, she and others say. Medical schools increasingly need to cram more information into the curriculum, and nutrition itself often lacks a designated department with a teaching staff and budget.

“There’s only so much time,” says Alan Johns, MD, MEd, associate dean for curriculum, medical education and technology at the University of Minnesota Medical School, Duluth, where students already spend an average of 25 hours per week in class mastering competencies required for board exams. Johns agrees that nutrition—beyond the biochemistry-based approach—is among several subjects that should be added to the curriculum. “But if we put them in, we have to ask: What do we take out?” he says.

“Mindset is also a factor. Medical schools have long taught nutrition as it relates to illness—deficiencies arising out of particular diseases, for instance, or feeding during hospitalization. As a result, doctors often know more about targeted deficiencies related to disease than they do about general nutrition, Hensrud says. “Our medical educational system is a disease-treatment model. You have to prioritize education. If it’s not a specialty if it’s not being reimbursed very well, if it’s along the lines of prevention it’s not going to be emphasized in the medical curriculum,” he explains.

Focus on the evidence. Make sure patients understand that switching to a plant-based diet not only helps treat illnesses such as diabetes or cardiovascular disease but also can prevent those illnesses. Patients will listen if you talk about the evidence.

Debunk stereotypes. Counteract the idea that eating healthy means eating bland or expensive food. Offer recipes that use low-cost items such as lentils or rice and show how to make simple soups or salads containing whole grains and vegetables. Have printed copies on hand.

Clear up confusion about fats. Low fat does not necessarily mean healthy. Tell patients our bodies need the right kinds of fat, which can be found in olive oil, nuts, avocados, seeds, salmon and coconuts. Meats should be lean and antibiotic-free. A little bit of fat in each meal helps reduce hunger between meals.

Offer strategies for shopping. Be ready with quick tips for navigating the grocery store. Tell patients that shopping the perimeter will put them within reach of real foods, not packaged alternatives. Remind them what they put in the cart will end up in their stomach.

Educate yourself. Consider taking an online CME course offered by the Nutrition in Medicine Project, which provides brief, targeted modules on topics commonly encountered in clinical practice such as helping patients change behavior; or attend the Mayo CME class offered through the Dan Abramson Healthy Living Center or one of several well-known conferences such as the Center for Mind-Body Medicine’s “Food as Medicine” or Harvard’s “Healthy Kitchens, Healthy Lives.” (David Eisenberg, MD, founder of “Healthy Kitchens, Healthy Lives” will be speaking at the University of Minnesota November 16. For more information go to z.umn.edu/ FoodMattersLecture.

Learn to cook. Experience in the kitchen is the best way for doctors to understand how to help patients with cooking healthy, delicious food. Plus, says Harvard’s Eisenberg, “it’s unabashedly fun.”

Develop a 30-second “elevator speech” on diet. This one works: Eat mostly vegetables, except for corn, peas and potatoes. Eat more fruit. Eat whole grains, but not refined products. Eat more nuts, more yogurt, more fish. Don’t worry about coffee because it’s fine. On the other hand, avoid red meat, processed meats, refined grains, sweets and desserts, sugary beverages, potato chips. And if you really want to get simple about it, remember good fats can make good carbs taste better. That means relying on olive oil, avocados or nuts to add flavor to grilled vegetables, whole-grain breads or fruits.—G.G.
Hensrud acknowledges that his medical school training in the early 1980s barely touched on the subject beyond the Krebs cycle and other biochemical processes; so after an internal medicine residency and preventive medicine fellowship at Mayo Clinic, he headed to the University of Alabama for a fellowship in clinical nutrition.

New information
Also contributing to the problem is the fact that the knowledge base has changed. At the time Hensrud was in school, the medical community generally saw good nutrition as avoiding illness-causing vitamin deficiencies through supplements or fortified foods. A public obsession with quick weight loss was creating confusion about the value of carbohydrates. The U.S. dietary guidelines, issued every five years since 1980, focused on eating simply a “varied diet” with an emphasis on reducing fats—an approach that created further confusion as well as a huge market for “fat-free” products often packed with added sugars. Since then, studies have shown that fat itself isn’t really the culprit; instead, it’s the kind of fat that matters. The latest dietary guidelines urge people to limit consumption of saturated and trans fats as well as sugars and sodium, and to get nutrients from food itself, not just supplements.

Within the past two decades, multiple studies have linked a diet of whole grains, vegetables, fruits, smaller portions of lean proteins such as fish or white meat, and fats derived from olive oil or nuts with decreased risk of coronary artery disease, stroke, diverticular disease, colorectal cancer, obesity, Type 2 diabetes and even total mortality. A 2014 cohort analysis of more than half a million participants, published in the journal BMJ, showed a roughly 25 percent overall reduction in mortality risk among those who ate five servings of fruits and vegetables every day—something only one in four Americans do.

“That’s pretty powerful evidence that nutrition influences not only disease-specific mortality but overall mortality,” Hensrud explains. “Both the medical profession in general—physicians and other health care providers—and the general population don’t quite appreciate the power of prevention with regard to nutrition.”

Indeed, doctors are often surprised by the evidence. At last year’s annual Minnesota Academy of Family Physicians conference, Michael Stiffman, MD, led a packed session on the latest nutrition studies. Many of those who attended said it gave them new insights. “I think we as physicians tend to be rooted in past recommendations about nutrition, which really are no longer true,” Stiffman says, noting that it’s been at least five years since studies showed a strictly low-fat diet fails to protect against heart disease. “You want a balanced diet. You want to have healthy fats in your diet. You want to have healthy proteins in your diet. You want to have healthy carbohydrates in your diet.”

Stiffman’s “aha!” moment came about a decade ago, when he attended “Healthy Kitchens, Healthy Lives,” a national conference sponsored by the Harvard T.H. Chan School of Public Health and the Culinary Institute on the latest in nutrition research that also offers hands-on cooking experiences under the guidance of top chefs.

“By and large, clinicians who go there have a blast,” says Harvard School of Medicine’s David Eisenberg, MD, who launched the conference 12 years ago and says more than 6,000 health care providers have attended. “They feel guilty about receiving continuing medical education credits. They eat healthy, delicious food and realize they could live this way forever. And many of them analogically write to me every year and say this has changed them, it’s changed their kids, it’s changed the way they think about their patients and the way they talk to their patients.”

Steven Radosevich, MD, medical director of HealthPartners’ Como Clinic in St. Paul and a longtime cook, was also galvanized by the conference, which he attended eight years ago. When he returned, he began handing out recipes to patients instead of just preaching about diet. He eventually partnered with University of Minnesota psychologist William Doherty, PhD, LP, MFT, to create the Como Health Club, which offers patients programs on exercise and stress...
reduction as well as cooking classes at The Good Acre, a food hub for local farmers near the St. Paul campus.

All this, he says, has made a difference for patients and doctors alike.

“Historically, if we just tell people to eat their fruits and vegetables, we know the impact of that is pretty low,” Radosevich says. “If we pin them down a little more on what they can do, actually give them a recipe or tell them they can come see our health coach or come to one of our classes, the impact really jumps.”

Tastes of change

For integrative medicine specialists, who have long understood the power of “food as medicine,” it’s frustrating that so many still dismiss the idea of using food to prevent or reverse disease. “Pharmaceuticals are still the primary tool,” says Nancy Sudak, MD, an integrative physician in Duluth and founding CEO of the Academy of Integrative Health and Medicine. “I don’t think anyone is satisfied by that. But physicians in the managed care climate haven’t felt like they’ve had the power, time or influence to use nutrition to have that critical impact on patients’ lives.”

Even so, the paradigm may be slowly shifting as novel approaches to nutrition education have begun to simmer within academic centers and practices. The 22-credit Mayo CME course, created by Hensrud and internist Warren Thompson, MD, was offered through the clinic’s Healthy Living Program for the first time in June to 15 physicians in spa-like facilities on the Rochester campus, giving physicians experience with exercise and stress reduction as well as hands-on cooking. Another session was scheduled for early August; starting in January 2017, Mayo will offer the course every other month depending on demand.

In the Twin Cities, HealthPartners holds an annual three-credit one-night class modeled after the Healthy Kitchens program. The class is taught by chefs at the Cordon Bleu. This October, the Institute of Lifestyle Medicine will hold a national summit for medical school educators to discuss how to incorporate topics such as exercise, stress reduction and nutrition into medical school curriculum.

Within the past year, Eisenberg has helped create a national Teaching Kitchen Collaborative made up of 23 organizations, some affiliated with medical schools, that plan to use cooking in kitchens to reinforce nutrition instruction in the same way science courses use laboratories. “Because without that contextualization, it’s just an abstraction,” he says.

This fall, the Center for Spirituality and Healing at the University of Minnesota, which has joined the collaborative, plans to offer a one-credit cooking course for medical students and other health science graduate students. The course, “Food Matters for Doctors,” was created last year by Kate (Venable) Shafto, MD, and local chef Jenny Breen and taught at The Good Acre. Demand for the cooking-based elective was high: Sixty-five medical students applied for 18 spots in the class.

One of those attending was Dominic Decker, the medical student who showed those dizzying slides to faculty last spring and who is now a first-year resident at Brown University. He says the teaching kitchen experience has transformed his conversations with patients into meaningful, two-way exchanges about food choices, grocery shopping and recipes. It’s also given him skills to stay nourished through the long, sleep-deprived hours of his training—skills his peers from around the country simply don’t have, he says. “It contributes enormously to my patient care,” he says, “but that self-care piece is also really important.”

Harvard’s Eisenberg is working with the National Board of Medical Examiners to set requirements—not just recommendations—for education about general nutrition, rather than deficiencies related to disease. He argues that knowing how to counsel a patient about basic nutrition is as important as knowing how to respond to a patient with acute chest pain or have a conversation about do-not-resuscitate orders. “In light of the fact that at least 80 to 100 million Americans are pre-diabetic, have pre-metabolic syndrome or are diabetic, can’t we make the argument it’s no longer negotiable whether you should have the skill set to talk to someone who is going in the wrong direction in terms of their weight, lipids or lifestyle?” MM

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