

# Healthy Kitchens, Healthy Lives: Caring for Our Patients and Ourselves

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Healthy Kitchens, Healthy Lives (HKHL) is a continuing medical education conference developed through a partnership between Harvard Medical School and The Culinary Institute of America. The annual event brings more than 400 attendees, including physicians from a wide range of specialties, registered dietitians, and other health care professionals, to The Culinary Institute of America campus in Napa Valley, Calif., each spring. Conference faculty include researchers and practitioners from Harvard Medical School, Harvard School of Public Health, and Harvard-affiliated teaching hospitals; guest health care faculty from other leading research and teaching facilities; registered dietitians and chef-instructors from The Culinary Institute of America at Greystone in St. Helena, Calif.; and guest chefs and world cuisine culinary experts from across the United States.

HKHL is designed to mimic medical training. In medical school, students “see one, do one, teach one.” Similarly, the 4-day HKHL conference combines lectures, culinary demonstrations, culinary workshops, hands-on kitchen sessions, and meals to create multiple opportunities for participants to “see one, taste one, make one.”

This article will discuss the impact health care providers’ personal health habits can have on the habits of their patients, describe the culinary nutrition goals taught in HKHL, review the evidence that supports these goals, and provide practical tips for health care professionals and their patients for making

changes to their shopping, cooking, and eating habits.

## Modeling Healthy Behaviors

Do health care professionals’ own eating habits directly or indirectly influence the eating habits of their patients? We know that other patient health habits may be influenced by the behaviors of the health care providers. For example, there is evidence that physicians who do not smoke are more likely than physicians who do smoke to encourage their patients to stop smoking.<sup>1</sup>

Although a similar study specifically targeting eating habits has not yet been completed, we have heard many stories from conference participants about the positive effects they are having on their spouses, children, peers, and patients after attending the conference. One physician wrote, “I have lost 40 lb since attending HKHL [7 months ago]. This whole experience has really changed my life. I feel better, and I am now more confident about addressing weight management with my patients. I can offer them strategies—even recipes!—that worked for me versus just offering general advice to eat less.”

## HKHL Culinary Nutrition Goals

### Goal 1: Choose healthier carbohydrates in place of highly processed, sugar-sweetened carbohydrate foods.

Encouraging patients to choose healthier carbohydrates can improve the glycemic load of their overall intake, which may have positive effects on short-term and long-term health, including decreasing the risk of type 2 diabetes and reduc-

Table 1. HKHL Culinary Nutrition Goals

Culinary Nutrition Goal	Specific Actions That Support the Goal
1. Choose healthier carbohydrates in place of highly processed, sugar-sweetened carbohydrate foods or highly refined grain products.	<ul style="list-style-type: none"> <li>Choose fruits, vegetables, beans, and other legumes (e.g., peas, lentils, and chickpeas) and whole-grain products.</li> </ul>
2. Choose healthier proteins in place of processed meats with higher saturated fat and sodium content.	<ul style="list-style-type: none"> <li>Choose lean meats, fish, seafood, poultry, beans and other legumes (e.g., peas, lentils, and chickpeas), and nuts.</li> </ul>
3. Choose healthier fats. Reduce saturated fat intake, avoid <i>trans</i> fats, and seek out sources of plant and marine omega-3 fatty acids.	<ul style="list-style-type: none"> <li>Choose oils such as canola oil and extra virgin olive oil, avocados, nuts, seeds, and fatty fish, such as salmon and tuna.</li> </ul>
4. Develop weekly menus.	<ul style="list-style-type: none"> <li>Spend 20–30 minutes 1 day per week planning meals for the following week.</li> </ul>
5. Use the “plate method” to plan meals.	<ul style="list-style-type: none"> <li>Put together meals that are one-fourth protein, one-fourth healthy carbohydrate, and one-half vegetables.</li> </ul>
6. Be mindful of portion size.	<ul style="list-style-type: none"> <li>Occasionally weigh or measure foods and beverages to remind yourself what a reasonable portion size looks like.</li> <li>Use smaller plates, bowls, and glasses.</li> </ul>
7. Choose better beverages in place of sugar-sweetened beverages.	<ul style="list-style-type: none"> <li>Choose water, coffee, or tea for the majority of your beverages.</li> <li>Beer and wine can be consumed in moderation, but be sure to count carbohydrates for beer and calories for both.</li> </ul>
8. Look for opportunities to reduce sodium intake.	<ul style="list-style-type: none"> <li>Use herbs and spices to season foods.</li> <li>Read product labels to find products with the least sodium.</li> <li>Drain and rinse canned vegetables.</li> <li>Use cooking techniques such as caramelizing and roasting to develop flavors in foods such as vegetables.</li> </ul>
9. Slow down and be more mindful when shopping, cooking, and eating.	<ul style="list-style-type: none"> <li>Take time to savor the beauty, aromas, and flavors of healthful foods.</li> </ul>
10. When possible, choose the more sustainable option.	<ul style="list-style-type: none"> <li>Choose local, seasonal produce when possible.</li> <li>Choose seafood from Alaska.</li> </ul>

ing inflammation, as measured by C-reactive protein.<sup>2,3</sup>

Encouraging patients to eat fewer processed carbohydrate foods requires an examination of their lifestyle habits and culinary competence. Choosing a piece of whole fruit instead of fruit juice at breakfast or

choosing whole-grain products in place of refined grain products may be good starting points for patients who do not cook. For patients who do cook, tips such as cooking brown rice instead of white rice or using whole-wheat pasta in place of traditional pasta can be helpful, although

patients may resist if suggested changes require too much effort. For example, whole grains such as brown rice take longer to cook, which may be a deterrent to patients who wish to minimize the time it takes to prepare foods at home. Recommending that patients cook large batches of

brown rice or other whole grains and then freeze and re-heat smaller portions in a microwave can help them overcome such barriers and develop new, healthier habits.

**Goal 2. Choose healthier proteins in place of processed meats that have higher saturated fat and sodium contents.**

Choosing healthier sources of protein is one way to reduce the saturated fat and sodium content of the overall diet. For proteins, it is important to address portion size in addition to nutrient quality. Patients who prefer having a large piece of marbled red meat in the center of their plate may need to transition to choosing a smaller portion of marbled red meat before they are ready to choose a more healthful protein source such as lean beef, fish, or poultry.

One effective culinary strategy is to use meat as a condiment rather than as the main component of meals. HKHL attendees are encouraged to think about meat as a flavor enhancer. Thin strips of pork on top of a bowl of Asian noodle soup made with whole-grain noodles and abundant vegetables make a healthy one-dish meal. Tossing whole-grain pasta with small amounts of chicken and vegetables in a tomato-based marinara sauce is another example of this strategy.

The greatest barrier most patients may have to choosing healthier proteins is the price. If they are used to shopping for ground beef on sale and you ask them to seek out wild salmon that is more expensive than what they are used to paying for ground beef, they are likely to resist making this change. Eating smaller portions and building in a few meatless meals each week are two strategies that may help overcome this barrier.

**Goal 3. Choose healthier, poly- and monounsaturated fats, such as canola oil, extra virgin olive oil, avocados, nuts, and seeds, in place of saturated and *trans* fats.**

The recommendation to choose healthier fats not only focuses on promoting the use of cooking oils such as canola or olive oil in place of butter or lard, but also on eating

foods that are sources of unsaturated fats such as avocados and nuts. These are foods with health-promoting benefits resulting in part from their fatty acid composition.

Numerous studies have reported the cardiovascular and weight management benefits of moderate-fat diets.<sup>4–6</sup> Sources of healthier fats such as nuts and extra virgin olive oil also have culinary and flavor benefits. Nuts and olive oil form the basis for creating rich, satisfying sauces that make other nutrient-rich foods more appealing. An example of this would be pairing grilled vegetables with Romesco sauce, a traditional Spanish condiment made with roasted red bell peppers and tomatoes, bread crumbs, almonds, hazelnuts, garlic, extra virgin olive oil, and smoked pimenton pepper. Often called “Spanish ketchup,” this smoky, naturally sweet sauce turns plain, grilled vegetables, chicken, or fish into memorable components of healthful meals.

**Goal 4. Develop weekly menus.**

As people strive to develop better eating habits, planning meals may be one of the most challenging tasks they face. An entire plenary session at HKHL is devoted to meal planning, with a focus on quick, healthful, and convenient meals. Attendees are encouraged to plan meals one week at a time, setting aside 20–30 minutes once a week to review ingredients on hand, develop menus for the week, and create a shopping list.

Attendees are taught to look for opportunities to “cook once, eat twice.” For example, grilling chicken on Monday night can provide enough meat for that evening’s meal, as well as extra chicken for a sandwich on Wednesday. Cooking more than enough brown rice to accompany a stir-fry on Tuesday will yield leftover brown rice that can be combined with canned beans, pre-cut vegetables, and chicken stock for a quickly prepared hearty vegetable soup on Thursday.

**Goal 5. Use the plate method to plan meals.**

The plate method helps people build a balanced, colorful meal by envi-

sioning a plate filled with one-fourth healthy protein, one-fourth healthy carbohydrates, and one-half vegetables. The plate method can also be used to help people think about the proportion of ingredients for mixed meals or one-dish meals such as soups, stews, casseroles, or stir-fries.

**Goal 6. Be mindful of portion sizes.**

Even if patients only eat healthful foods, large portions can have a negative effect on their efforts to manage their weight and blood glucose levels. Encouraging patients to measure or weigh their portions is a good way to remind them about what a healthful and reasonable portion looks like on a plate or in a glass.

One HKHL session that always shocks the audience is the “Portion Distortion” presentation, in which two conference faculty dietitians fill two different plates (one 10-inch dinner plate and one 14-inch dinner plate) with foods from the breakfast or lunch buffet. One plate is designed to show what 400–500 calories of an assortment of healthful foods looks like. The second plate contains 800–1,000 calories of foods. These plates demonstrate how small increases in both plate and portion size can have dramatic effects on caloric intake from a single meal.

One recommendation that resonates with many conference attendees is to simply switch to smaller plates, bowls, and glasses for meals.

**Goal 7. Choose better beverages in place of sugar-sweetened beverages.**

Americans consume nearly one-fourth of their daily calories from liquid sources.<sup>7</sup> Encouraging patients to choose noncaloric beverages such as water, coffee, or tea can have a significant impact on their caloric intake as well as their ability to manage their weight and diabetes. The PREMIER trial<sup>8</sup> showed a positive correlation between a reduction in sugar-sweetened beverage consumption and weight loss in overweight adults. This study demonstrated that reducing caloric intake from liquid sources by 100 calories per day—an amount found in just 8 oz of sugar-sweetened soda—can help people lose modest amounts of weight.

### Goal 8. Look for opportunities to reduce sodium intake.

The average American adult consumes > 3,400 mg of sodium each day, exceeding the recommended intake of 2,300 mg.<sup>9</sup> The vast majority (65%) of sodium in the American diet comes from processed food, with salt as an ingredient in home cooking (20%) and naturally occurring sodium (15%) contributing the rest.<sup>10</sup> The average American eats 21% of his or her meals each week away from home.<sup>10</sup> These meals account for 34% of total sodium intake each week, thereby showing the higher sodium contribution from foods prepared away from home.<sup>10</sup>

Based on the knowledge that processed foods contribute the majority of sodium to the average American diet, the best advice for patients is to limit their intake of processed foods and to eat and cook with more whole foods. Patients who use canned products such as canned beans can be encouraged to drain and rinse these foods. A recent study showed that, on average, draining canned beans reduces their sodium content by 36%, and draining and rinsing them reduces their sodium content by 41%.<sup>11</sup> Patients who eat foods prepared away from home should be encouraged to limit their portion sizes and, when possible, to review nutrition information before making menu choices to limit their sodium and caloric intake.

It is important to remember that the number-one reason people choose the foods they do is because of the taste or flavor of those foods. People who eat out often and rely on processed foods at home may have a stronger preference for saltier foods. Helping patients develop an appreciation for foods with less sodium will require time and education about alternative flavoring strategies, including the use of spices and herbs and cooking techniques such as toasting, roasting, caramelizing, and grilling to enhance food flavors.

### Goal 9. Slow down, and be more mindful when shopping, cooking, and eating.

Many people derive great pleasure from shopping, cooking, and enjoying great food, but in today's

fast-paced society, people often do not take time to appreciate the beauty of a fresh peach or the aroma of fresh herbs. Encouraging patients to slow down, be more mindful, and take more time to plan meals, shop for healthful foods, and prepare meals and snacks may have positive effects on weight and blood glucose management.

### Goal 10. When possible, choose the more sustainable option.

Sustainability is an umbrella term that covers a wide range of issues related to how foods are grown, produced, harvested, transported, and packaged. The most widely cited definition of sustainability is meeting present needs without compromising the ability of future generations to meet their needs.

Because there are so many issues to consider when it comes to making sustainable food choices, it is most helpful to provide very specific guidance. One example of this would be to recommend that patients seek out locally grown, seasonal produce to get the best flavor from fruits and vegetables that have been transported as little as possible to limit the carbon footprint of the produce.

Another example would be recommending that patients seek sources of Alaskan seafood. The Alaska seafood industry is known for its sustainable fishing practices. The Alaska State Constitution includes language on maintaining a sustainable seafood industry.<sup>12</sup> The Alaska seafood industry is regarded as an environmentally responsible and sustainable model for the worldwide fishing industry. Suggesting that patients seek out Alaskan seafood products, either fresh or flash-frozen, is a specific, actionable tip. The Monterey Bay Aquarium Seafood Watch (<http://www.montereybayaquarium.org/cr/seafoodwatch.aspx>) is another helpful resource for information about what types of seafood products to buy or avoid.

### Summary

Health care providers can help patients improve their diets by modeling healthful behaviors and providing specific tips and advice

they have found helpful in their own efforts to eat better. The HKHL continuing medical education conference and Web site ([www.healthykitchens.org](http://www.healthykitchens.org)) provides further information, hands-on training, and resources for health care providers interested in these topics.

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