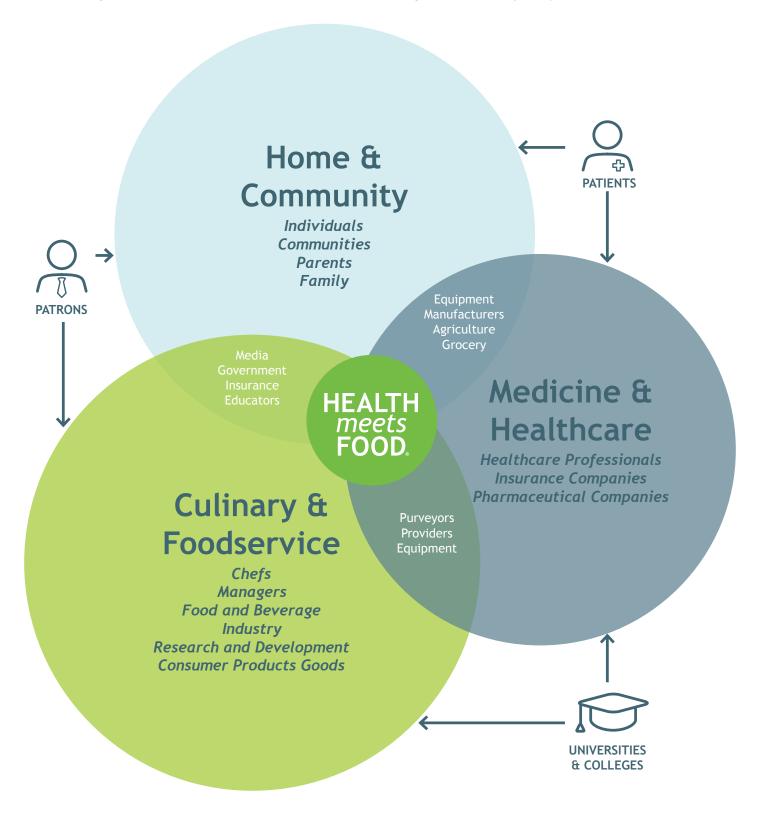


Stakeholders

The American College of Culinary Medicine sits at the center of three primary stakeholders: healthcare, foodservice, and the communty. Each of these groups has overlap with each other in unique ways.

For example, community members may be patients of a phsycian or healthcare group, while also being patrons of a restaurant or the cafeteria at a hospital. By all of the groups interacting with each other and working from the same understanding of where food and health intersect, we are creating tremendous impact systemwide.



Culinary Medicine

The American College of Culinary Medicine continues as the national leader in Culinary Medicine programs. The initiative now extends across the spectrum of community members from children to adults, healthcare professionals in training, culinary schools, practicing healthcare providers, county extension agents, chefs, foodservice professionals, and the Healthy Start program.



The standard Culinary Medicine programming across the United States is *Health meets Food*, a robust courseware set that serves multiple constituencies, including medical schools, hospitals, residency programs, nursing schools, dietetics programs, county extension agents, community organizations, and culinary schools.

The goals and objectives of the curriculum focus on the significant role that food choices and nutrition play in preventing and managing food-related diseases in America.

This inclusive view allows for unique collaboration between the healthcare and foodservice industries, along with community members, to transform healthy eating across multiple domains, whether in the home or away, in the office or at a hospital, and in schools and universities.

The curriculum helps healthcare professionals understand the impact of food on the health of their patients. Bringing basic science curriculum together with clinical education, classes offer a more complete view of how healthcare professionals can incorporate dietary intervention strategies into their practice of medicine. Through hands-on cooking classes, professionals learn the practical aspects of lifestyle change necessary to help them guide their patients to healthier food choices.

The programming teaches from a food-first perspective, offering the practical aspects of what patients face day-to-day in making substantive change in their lives.



Current modules include:

Module 1KS:	Kitchen Safety & Sanitation Module	Module 17:	IBS, IBD, GERD
Module 1:	Introduction to Culinary Medicine	Module 18:	Congestive Heart Failure
Module 2:	Weight, Obesity & Portion Control	Module 19:	HIV
Module 3:	Fats and Heart Disease	Module 20:	Geriatrics
Module 4:	Food Allergy & Intolerance	Module 21:	Mindfulness & Motivational Interviewing
Module 5:	Protein & Vegetarian	Module 22:	Eating Disorders
Module 6:	Sodium, Potassium, Renal & Hypertension	Module 23:	Myths, Fads, Diets, & Controversies
Module 7:	Carbohydrates & Diabetes	Module 24:	Polycystic Ovary Syndrome
Module 8:	Pediatric Diet	Module 25:	Bariatric Diet Strategies
Module 9:	Sports Nutrition	Module 26:	Food Safety
Module 10:	Cancer Nutrition	Module 27:	Billing & Coding
Module 12:	Pregnancy & Nutrition	Module 28:	PKU Nutrition
Module 13:	Celiac Disease	Module 29:	Enteral & Parenteral Nutrition
Module 14:	Food Allergy	Module 30:	Food Security Issues
Module 15:	Food & Neurocognition	Module 32:	Pharmaceutical Treatment for Obesity
Module 16:	Anti-inflammatory Diet	Module 33:	Systematic Treatment of Obesity

Curriculum Committee

Over the last ten years, 33 modules have been developed for healthcare professionals, providing a comprehensive curriculum.

The curriculum committee meets monthly to update the curriculum, one module at a time. Nine modules were reviewed since October 2023, some with major overhauls. For example, pregnancy was consolidated to one module after removing redundancies. The allergy module underwent consolidation as well as expanded content to include sesame. In response to the latest research on obesity treatments, especially emerging pharmaceuticals, modules 32 and 33 now better reflect this rapidly evolving field. The neurocognition module was expanded to include ketogenic diet for seizure disorders and the Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet.

Throughout the modules and supplemental materials, careful attention was given to ensure the utmost professionalism. For example, verbiage was modified to ensure non-judgmental, person-first language and remain neutral on gender and race unless relevant to the topic. Quiz questions were modified for clarity and succinctness. Approximately 25 percent of the quiz questions were rewritten to align with the key objectives and reflect the updated content. In addition, case study answer keys not only reflect new content but are reformatted in bullets to provide more streamlined access for instructors.

Currently, the Curriculum Committee is working on the foundational modules with projected completion by the end of this year. There are about 16 active members from diverse backgrounds and expertise that graciously volunteer their time, enthusiasm, and dedication to keeping the curriculum up to date.

The following modules have been updated:

Module 1:	Introduction to Culinary Medicine	Module 23:	Myths, Fad Diets & Controversies
Module 4:	Allergy and Intolerance	Module 24:	PCOS
Module 12:	Food & Neurocognition	Module 32:	Pharmaceutical Treatment for Obesity
Module 15:	Anti-inflammatory Diet	Module 33:	Systematic Treatment of Obesity

Certified Culinary Medicine Specialist Program



From June 2023 to date, we've seen 51 candidates successfully qualify to sit for the board examination, while an impressive 153 candidates have enrolled in the course within the last 12 months alone. Our Moodle platform boasts a thriving community of 819 active CCMS users. Since 2016, a total of 353 candidates have fulfilled the criteria to register for the certification examination.

Building on this success, the ACCM has proudly certified 232 Culinary Medicine Specialists as of the last exam. These specialists are now actively applying their expertise across various domains, including clinical practice, academia, media, and community outreach, making a tangible impact in their respective fields and the lives of their patients and communities.

The Certified Culinary Medicine Specialist (CCMS) designation identifies clinicians who have a unique foundation for incorporating healthy eating into patients' diets: comprehensive knowledge of nutrition and the culinary techniques to prepare food that is consistent with real-world budgets, time constraints, and nutritional ideals.

The obesity and attendant cardiometabolic risk epidemics are running rampant in the United States. With 69% of adults identified as overweight or obese, and the typical American diet exceeding the recommended intake levels for fat, sugar, refined grains, and sodium, the need for healthcare practitioners to actively engage patients on issues related to diet is greater than ever.

Through certification, clinicians will enhance their confidence and quality of care by learning how to:

- Explore the implications of diet on overall health
- · Enhance the quality of patient counseling
- Improve the management of diet-related chronic diseases

Featuring a hybrid 60-credit curriculum comprised of online education, live conference learning, and hands-on teaching kitchen modules, the CCMS program is designed for those passionate about integrating dietary intervention into their practice strategies and will equip candidates with the nutritional knowledge and culinary skills to optimize health management.



Community Courseware

The Community programming focuses on helping participants understand recipes, meal planning, shopping, cooking, and storing healthy meals. Specific attention is paid to the cultural and financial importance food has in our lives. Medical students are the force multiplier, teaching the healthy cooking modules for the community and allowing sites to offer community programming at scale.

Programming has been developed for adults, families, kids, seniors, and expectant mothers, as well as Spanish language classes. The core programming uses Mediterranean diet principles and translates the state-of-the-art research for the American kitchen. The translation of Mediterranean diet allows us to meet patients where they live, with dishes they know and love, like spaghetti, tacos, red beans and rice, Caesar salad, and chili. Great food that just happens to be great for you.

Adults: In-Person and Virtual Modules

Module 1:	Mediterranean Diet & Introduction to Cooking	(with Spanish translation)
Module 2:	Understanding Nutrition Labels, Menu Planning & Sensible Breakfasts	(with Spanish translation)
Module 3:	Good Shopping Habits & Delectable Dinners	(with Spanish translation)
Module 4:	Portion Sizes & Great Lunches	(with Spanish translation)
Module 5:	Healthy Snacks & Desserts, Rethink Your Drink	(with Spanish translation)
Module 6:	Fats & Cholesterol, Roasting	(with Spanish translation)
Module 7:	Carbohydrates, Soups, Stews & Crockpot Cooking	
Module 8:	Protein, Grilling & Broiling	
Module 9:	Poaching, Steaming & Blanching	
Module 10:	Sodium, Advanced Knife Skills, Sautéing & Finishing Sauces	
Module 11:	Mindfulness	
Module 12:	Local Resources, Create Your Own Meal	

In addition to the adult beginner and intermediate series, courseware for a wide variety of groups has been developed and implemented at partner sites across the country. These include:

Community Courseware for Expectant Mothers

Lesson 1: Introduction to Culinary Medicine and the Mediterranean Diet

Lesson 2: Diet and Nutrition in Pregnancy

Lesson 3: Diet After Delivery

Community Courseware for Families

Community Family Series Lesson 1: Mediterranean Diet, Introduction to Cooking, and MyPlate

Community Family Series Lesson 2: Healthy Breakfasts & Nutrition Labels

Community Family Series Lesson 3: Healthy Desserts, Fruits & Vegetables

Community Family Series Lesson 4: Packed Lunch

Community Family Series Lesson 5: One Pot & Make Ahead Meals, Proteins & Grains

Community Family Series Lesson 6: Legumes and Dinner

Community Courseware for Kids

Lesson 1: Red Day Learning Objectives

Lesson 2: Orange Day Learning Objectives

Lesson 3: Yellow Day Learning Objectives

Lesson 4: Green Day Learning Objectives

Lesson 5: Blue/Purple Day Learning Objectives

Lesson 6: Eat the Rainbow Learning Objectives

Partner Sites

The courseware has been adopted by over 50 medical schools and residency programs across the United States, representing over 25 percent of medical schools in the United States. Hundreds of faculty members and thousands of students have participated in programming.

Culinary Medicine partner sites form an extensive network of medical schools, residency programs, dietetics programs, nursing schools, and culinary schools using the courseware, and those programs are pursuing some of the most innovative curricula and programming in medical education.

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Research Initiatives

From the outset it has been critical to document the outcomes of Culinary Medicine programming, both with professionals as well as with community members participating in hands-on cooking classes. That effort has led to research initiatives across the country, and over the course of the last 5 years, 78 posters have been presented at the annual *Health meets Food*: The Culinary Medicine Conference.

2014

Teaching 3rd & 4th year medical students how to cook: an innovative approach to balance lifestyle modification and medication therapy in chronic disease management.

Leong B, Ren D, Monlezun DJ, Ly D, Sarris L, Harlan TS. <u>Teaching 3rd & 4th year medical students how to cook: an innovative approach to balance lifestyle modification and medication therapy in chronic disease management.</u> Medical Science Educator. 2014;24(1)43. doi: 10.1007/s40670-014-0014-5.

Medical student-led community cooking classes: a novel preventative medicine model easy to swallow. Birkhead A, Foote S, Monlezun DJ, Loyd J, Joo E, Leong B, Sarris L, Harlan T. Medical student-led community cooking classes: a novel preventative medicine model easy to swallow. American Journal of Preventive Medicine. 2014;46(3):e41-e42. doi:10.1016/j.amepre.2013.11.006.

2015

Medical school-based teaching kitchen improves HbA1c, blood pressure, and cholesterol for patients with type 2 diabetes: results from a novel randomized controlled trial.

Monlezun DJ, Kasprowicz E, Tosh K, Nix J, Urday P, Tice D, Sarris L, Harlan TS. <u>Medical school-based teaching kitchen improves HbA1c</u>, blood pressure, and cholesterol for patients with type 2 diabetes: results from a novel randomized controlled trial. Diabetes Research and Clinical Practice. 2015;109(2):420-6. doi: 10.1016/j.diabres.2015.05.007.

Novel longitudinal and propensity-score matched analysis of hands-on cooking and nutrition education versus traditional clinical education among 627 medical students.

Monlezun DJ, Leong B, Joo E, Birkhead AG, Sachs BP, Sarris L, Harlan TS. <u>Novel longitudinal and propensity-score</u> <u>matched analysis of hands-on cooking and nutrition education versus traditional clinical education among 627 medical students.</u> Advances in Preventive Medicine. 2015:656780. doi: 10.1155/2015/656780.

Cooking up better doctors as teachers globally: a novel integrated nutrition and cooking class curriculum for pediatric residents to boost their competencies and attitudes in patient counseling.

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2018

Machine Learning-Augmented Propensity Score-Adjusted Multilevel Mixed Effects Panel Analysis of Hands-On Cooking and Nutrition Education versus Traditional Curriculum for Medical Students as Preventive Cardiology: Multisite Cohort Study of 3,248 Trainees over 5 Years.

Monlezun DJ, Dart L, Vanbeber A, Smith-Barbaro P, Costilla V, Samuel C, Terrigino CA, Abali EE, Dollinger B, Baumgartner N, Kramer N, Seelochan A, Taher S, Deutchman M, Evans M, Ellis RB, Oyola S, Maker-Clark G, Dreibelbis T, Budnick I, Tran D, DeValle N, Shepard R, Chow E, Petrin C, Razavi A, McGowan C, Grant A, Bird M, Carry C, McGowan G, McCullough C, Berman CM, Dotson K, Niu T, Sarris L, Harlan TS, and on behalf of the CHOP Co-investigators. Machine Learning-Augmented Propensity Score-Adjusted Multilevel Mixed Effects Panel Analysis of Hands-On Cooking and Nutrition Education versus Traditional Curriculum for Medical Students as Preventive Cardiology: Multisite Cohort Study of 3,248 Trainees over 5 Years. BioMed Research International. 2018; doi.org/10.1155/2018/5051289

2019

Multisite Medical Student-Led Community Culinary Medicine Classes Improve Patients' Diets: Machine Learning-Augmented Propensity Score-Adjusted Fixed Effects Cohort Analysis of 1381 Subjects.

Zachary Stauber, Alexander C. Razavi, Leah Sarris, Timothy S. Harlan, Dominique J. Monlezun. (2019) <u>Multisite Medical Student-Led Community Culinary Medicine Classes Improve Patients' Diets: Machine Learning-Augmented Propensity Score-Adjusted Fixed Effects Cohort Analysis of 1381 Subjects. American Journal of Lifestyle Medicine.</u>

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Multisite Culinary Medicine Curriculum Associates with Cardioprotective Dietary Patterns and Lifestyle Medicine Competencies Among Medical Trainees.

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