A Taste of Culinary Nutrition

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Culinary Nutritionist & Owner, Cook Learn Live
Learning Goals

- After attending this session, nutrition professionals should be able to:
  
  - Understand the practice area of culinary nutrition, its importance, and its practical applications in the food and health industries.
  
  - Understand the symbiotic relationship of the traditional nutrition care process and culinary nutrition applications.
  
  - Identify current and future professional opportunities and applications for culinary nutrition in the field of nutrition and dietetics.
  
  - Understand the positive impact of culinary nutrition in prevention of disease, treatment outcomes and overall wellness.

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About Me

- Jenna Saidel Lebowich, MS, RDN
  - Culinary Nutritionist and owner of Cook Learn Live
  - B.S., Cornell University School of Hotel Administration
  - M.S., Human Resources Development from Suffolk University - focus on counseling and adult learning
  - 15 years in Human Resources in the hospitality and fitness industries, specializing in training and development and employee counseling
  - Founded Cook Learn Live in Fall of 2009
  - Nutrition coursework at WCC, Lehman College DPD, Hunter College DI
  - DPGs = Food and Culinary Professionals, Nutrition Entrepreneurs, Vegetarian Nutrition

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Today’s Recipe

- What is Culinary Nutrition?
  - Broad definitions
  - Practical applications
  - Training and education opportunities
- Role of Culinary Nutrition in Overall Framework of Food, Nutrition and Public Health
  - Impact on health and wellness
  - Research and evidence base
  - Public support
- Cook Learn Live
  - History
  - What I do
  - Case studies
- Questions and discussion

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What is Culinary Nutrition?

- A few definitions from a quick web search:
  - “Culinary nutrition is the application of nutrition principles combined with food science knowledge and displayed through a mastery of culinary skills. The results formed from the merging of nutrition and food science with the culinary arts are healthy eating behaviors produced from culinary confidence and nutrition alertness.”
  - “Culinary nutritionists create meal plans to help clients meet their nutritional needs or manage health issues like high blood pressure and obesity. They might also educate them about the benefits of a healthy diet.”
  - “Culinary nutrition fuses the science of nutrition with the creativity of healthy eating and cooking. Culinary nutrition helps sort through the complex maze of common health conditions and succeeds at translating medical dietary prescriptions into practical, everyday steps that you can take towards eating wholesome food and succeeding toward your health goals.”
FCP Website [http://www.foodculinaryprofs.org/](http://www.foodculinaryprofs.org/)

Goal is to “empower members to be the nation’s food, culinary and nutrition leaders”

FCP DPG definition of culinary nutrition: “…culinary nutrition professionals are typically RDs who are professional culinarians or who have extensive professional experience in culinary arts. RDs who practice culinary nutrition help people and companies create menus, menu items, products or recipes that are nutritionally sound and flavorful. Culinary nutrition professionals can work side-by-side with chefs or other culinary professionals, knowing the language, techniques, and tools of the culinary world and applying nutrition science principles to create great-tasting, good-for-you foods.”

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Culinary Nutrition Core Competencies

Core competencies for Food and Culinary Professionals
Practical Applications of Culinary Nutrition

- Food service organizations, institutional dining, and restaurants
  - School and congregate feeding food service, hospitals
  - Spas, resorts, cruise lines, restaurants and hotels
    - Rouge Tomate restaurant [http://www.rougetomatechelsea.com/about](http://www.rougetomatechelsea.com/about)
      - “Our mission is to provide an extraordinary dining experience that supports the total well-being of the individual and the environment.”

- Consulting agencies
    - *Sanitas Per Escam* = “Health Through Food”

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Retail, food marketing, and product development
- Food science and product development
- Food marketing
- Supermarket dietitians

Food Safety
- Educating the consumer on disease prevention and food safety in the home
- Ensuring the safety of the public in restaurants and institutions
- Overall safety of our food system
- The CDC and The Partnership for Food Safety Education
Practical Applications of Culinary Nutrition - Continued

- Media and communications
  - Recipe development for specific products and supporting nutrition themes
  - Writing for magazines, newspapers, blogs, television, podcasts, etc.
  - RD as spokesperson for organizations or products
  - Cookbooks

- Sustainability and agriculture
  - Where does food come from and how is it grown?
  - Reducing food waste
  - Partnering with agriculture to ensure the safety and longevity of our food supply
  - Agricultural sciences – development of new products
  - Resurgence of heritage and heirloom products and reintroduction of overlooked foodways
Practical Applications of Culinary Nutrition - Continued

- Social Service agencies and non-profit organizations
  - Food Banks
    - Feeding America
    - Food Bank for Westchester
  - Cooperative Extension
    - EFNEP Expanded Food and Nutrition Education Program
  - Community Outreach Programs
    - Share Our Strength-Cooking Matters [https://cookingmatters.org/](https://cookingmatters.org/)
    - Sylvia Center [http://www.sylviacenter.org/](http://www.sylviacenter.org/)
      - “We’re growing a community of healthy eaters—and it starts by teaching young people how to cook.”
  - City Harvest
  - United Way
  - Children’s Aid Society
  - The Fresh Air Fund
For-profit culinary nutrition, community nutrition education and individual client counseling

- Programs for community groups – houses of worship, schools, scout troops, PTAs, etc.
- Corporate team building and wellness events
- Nutrition-focused cooking classes and individual instruction

Cook Learn Live!
Culinary Nutrition Training & Education

- No requirement to be a formally trained chef
- Training depends on the role and track
- Formal Programs
  - Johnson and Wales University – Providence, RI and Denver, CO – BS culinary, food science and nutrition DPD
  - Independent programs including The Natural Gourmet program affiliated with Institute for Integrative Nutrition and The Academy of Culinary Nutrition, an online program based in Canada
  - ICE and other culinary arts programs offer wellness track classes
  - CIA – incorporates health and wellness education, RDs on faculty, but no formal degree program
    - Partnership with the Chan School of Public Health at Harvard
      - Menus of Change Initiative http://www.menusofchange.org/
      - Healthy Kitchens Healthy Lives http://www.healthykitchens.org/

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Role of Culinary Nutrition in Overall Framework of Food, Nutrition and Public Health
Impact of Culinary Nutrition on Health and Wellness

- 2010 article in The Journal of Extension - “How Culinary Nutrition can Save the Health of a Nation” by Margaret D. Condrasky and Marie Hegler, Clemson University
  
  http://ejournal.narotama.ac.id/files/How%20culinary%20nutrition%20can%20save%20the%20health%20of%20a%20nation.pdf

- Perfectly describes the health and nutrition issues facing our society and how culinary nutrition can help to mitigate and prevent the effects of our poor nutritional health

- Abstract:
  
  “Culinary nutrition is the practicality needed to make a difference in our nation's health. With rates of obesity and overweight rising and some of the top causes of American deaths being related to poor diet, the nation needs nutrition intervention that stretches across many of the barriers that prevent healthy eating practices. However, making nutrition principles easily accessible is useless without also making them applicable. Therefore, hands-on culinary nutrition outreach programs focused on producing sustainable healthy eating behavior through culinary confidence and nutrition alertness are a successful approach to begin the restoration of our nation's health.”

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“Due to an increase reliance on convenience, Americans possess drastically different cooking and eating practices compared with previous generations.”

Percentage of the food budget spent on away-from-home food has been gradually increasing since the mid-1970s

Americans spend approximately 49% of their food budget and take in 32% of their calories on away-from-home foods (USDA, 2007)

Compromised nutrition—purchased foods and meals chosen outside of the home usually contain less fruits, vegetables, and milk while supplying more saturated fat and calories
“How Culinary Nutrition can Save the Health of a Nation”

- Increased evidence to link the trend of poor dietary habits with the lack of cooking at home and nutrition knowledge.
  - The 1994-1996 Continuing Survey of Food Intakes by Individuals suggests that people with a greater knowledge of nutrition eat a healthier mix of vegetables than people with less nutrition education (Guthrie, Lin, Reed, & Steward, 2005)
  - 2006 Keystone Forum Report - many Americans simply lack the knowledge of how to purchase and prepare foods for healthy meals (Keystone, 2006)
  - In a study of obesity prevention and health promotion, nutrition education received a much greater emphasis when compared to physical activity or media education in obesity prevention (Lanigan & Power, 2008)
  - Some research suggests cooking skills are declining, thus impairing the public's ability to prepare nutritionally sound meals (Short, 2003)
Application of Culinary Nutrition to the Nutrition Care Process

- ADIME = Intervention step
  - Reinforce patient education and knowledge base
  - Teach skills that may be missing for effective implementation of nutrition education information
  - Supports all three primary styles of adult learners – visual, auditory, and kinesthetic
    - We retain approximately 10 percent of what we see; 30 to 40 percent of what we see and hear; and 90 percent of what we see, hear, and do. We all have the capability to learn via all three styles, but are usually dominant in one
  - Experiential learning -- the process of learning through experience, and is more specifically defined as "learning through reflection on doing". Hands-on learning is a form of experiential learning but does not necessarily involve students reflecting on their product.
    - When incorporated into therapeutic counseling, experiential learning becomes more than task oriented. It helps the client to reflect on how they can combine skill and knowledge for a successful outcome

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A No-Brainer!?!?!

- Teach people to cook, they will eat more meals prepared at home, understand what goes into their food, and make better food choices both in and outside of their home
  - Ex: Diagnosed with CVD or HTN – Educate on DASH or Mediterranean Diet – provide education in hands on cooking skills and tasting of new foods and preparation styles – enjoy new foods and learn how to easily incorporate into daily life – embrace and implement change
o CN could be used to varying degrees and with appropriate adjustments at all 5 stages of the trans-theoretical model of change

o Continuum starting with an intro to the kitchen and “cooking isn’t impossible,” to “here are some recipes you enjoy (that happen to be healthy for you),” to “here’s how to regularly incorporate these foods into your diet”

<table>
<thead>
<tr>
<th>Pre-Contemplation</th>
<th>Contemplation</th>
<th>Preparation</th>
<th>Action</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend a basic, fun class with a social focus</td>
<td>Attend a basic class to introduce to kitchen and build confidence</td>
<td>Attend a program generally introducing foods that fit desired profile</td>
<td>Targeted recipes to introduce and reinforce desired eating habits</td>
<td>Skill based cooking instruction to build upon prior knowledge</td>
</tr>
</tbody>
</table>
Research and Evidence Base

- FNCE programs on effectiveness of Culinary Nutrition and Nutrition Education
- Evidence base is somewhat limited
- Dr. Marla Reicks, PhD, RD of U. of Minn. – Meta review on Impact of Cooking and home food preparation interventions among adults: outcomes and implications for future programs that looked at the results of 28 studies worldwide
  - 18 studies without a control group found beneficial changes in intake after intervention – nutrients, food groups, specific foods
  - 16 studies with control groups – majority showed improved dietary intakes with intervention
  - Positive changes were seen in studies addressing serum cholesterol, rheumatoid arthritis, CKD, prostate cancer
- Dr. Leslie Cunningham-Sabo, PhD, RDN of Colorado State – research on cooking education interventions for children in programs in NM and CO
  - Significant gains in cooking skills
  - Gains in vegetable preference
  - Best outcomes are when there is parent involvement and knowledge and skills are implemented in the home

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Present and Future Outlook

- Greater awareness of and interest in food, cooking and nutrition in the media, the general public and in the food and health industries
  - Media
    - Popular food documentaries *Food, Inc*; *Forks Over Knives*; *Fed Up*; *SuperSize Me*
    - Mainstream publications and television; more cooking and food magazines & books
  - Journalist Michael Pollan
    - *In Defense of Food* – "shows how common sense and old-fashioned wisdom can help us rediscover the pleasures of eating and avoid the chronic diseases so often associated with the modern diet."
    - *Cooked* – "Highlighting our primal human need to cook, the series urges a return to the kitchen to reclaim our lost traditions and to forge a deeper, more meaningful connection to the ingredients and cooking techniques that we use to nourish ourselves."
General public

- Growing interest in food and cooking, but not all nutrition focused
- Cooking as a reality show subject – entertainment, but not part of everyday life
- “Food Porn” – not realistically attainable – “I can’t make that”
  - Viewership of Food Network
    - 58% of viewership is composed of women
    - 54% of audience is in the 18-49 age demographic
    - 31% of viewers have graduated with at least a 4 year degree from a university or college
- Bombarded with mixed messages about food and nutrition from multiple sources
- Growth of meal kit industry and meal delivery services – slowly bringing cooking back into the home
  - Forbes October 2015 “Blue Apron now delivers 5 million meals a month, up from 500,000 just 18 months ago. Last November, FORBES estimates, sales crossed an annualized rate of $100 million; this year they’ll more than triple. In 2016 the company should top half a billion.”
  - “Americans spend $1 trillion each year on food, about $400 billion of that on dinner, but they’re not spending as much time as they used to cooking the food themselves. Less than 60% of dinners eaten at home are cooked there, according to a recent study by market research firm NPD Group, down from 71% in 1985.”

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Food and Health Industries

Food service industry paying more attention to healthier meals, sustainability

CIA Menus of Change Initiative
http://www.menusofchange.org/

Bring together leaders in the culinary arts, business, public health, and environmental sciences to develop business-friendly solutions to today’s most pressing social and environmental concerns such as:

- Obesity, diabetes, and healthcare costs
- The sourcing and production of our food
- The challenge of feeding an additional two billion people by 2050, as global resources decline”

Created a network of collaboration among chefs, nutrition and environmental scientists, farm and fisheries experts, foodservice executives, and policy makers
CIA Menus of Change Initiative

**PRINCIPLES OF HEALTHY, SUSTAINABLE MENUS**

- **BUY Fresh, Seasonal, Local, Global**
- **REWARD Better Agricultural Practices**
- **LEVERAGE Globally Inspired, Plant-Based Culinary Strategies**
- **FOCUS on Whole, Minimally Processed Foods**
- **Celebrate Cultural Diversity & Discovery**
- **LEAD with Menu Messaging Around Flavor**
- **REDUCE Portions, Emphasizing Calorie Quality Over Quantity**
- **REPLACE Added Sugars**
- **RETHINK Flavor Development from the Ground Up**
- **DRINK Healthy: From Water, Coffee, and Tea To, With Caviar, Beverage Alcohol**
- **MAKE Whole, Intact Grains the New Norm**
- **LIMIT Potatoes**
- **MOVE Legumes and Nuts to the Center of the Plate**
- **SERVE More Kinds of Seafood, More Often**
- **GO ‘GOOD FAT,’ NOT ‘LOW FAT’**
- **SUBSTANTIALLY REDUCE SUGARY BEVERAGES, INNOVATE REPLACEMENTS**

**MENUS OF CHANGE**

- The Culinary Institute of America and President and Fellows of Harvard College, as published in the Menus of Change Annual Report. All rights reserved. See the full version of the principles at http://www.menusofchange.org/menus-insights/resource/
Healthcare initiatives towards prevention through diet and greater nutritional awareness of physicians and allied health professionals

- Lenox Hill Hospital – Dr. Robert Graham – Victory Greens rooftop garden
- Goldring Center for Culinary Medicine at Tulane Medical School https://culinarymedicine.org/
- CIA Healthy Kitchens Healthy Lives program http://www.healthykitchens.org/

Goal of educating doctors, nurses and other healthcare professionals about the latest scientific evidence to distinguish "healthy" versus less healthy or unhealthy foods; educating them to successfully engage their patients to improve their food and beverage choices and lifestyles and serve as role models, coaches, and teachers to shift the way adults think about purchasing, preparing, and enjoying healthy and delicious foods

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Philosophy

“I believe that food should taste good and be good for you, and that with a little bit of knowledge anyone can make delicious, nutritious meals and healthier food choices for their families or themselves. My passion is working with people who are learning how to cook, helping them to understand the foods they eat and where they come from, and helping them to make informed nutritional decisions. I counsel individuals and families on making healthy lifestyle changes and learning how to plan, cook and eat healthy, delicious meals that support their nutrition and medical needs. Most of all, I love food and cooking and enjoy sharing meals, recipes, and information with others.”

http://cooklearnlive.com/

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My Inspiration

“You don’t have to cook fancy or complicated masterpieces—just good food from fresh ingredients.” – Julia Child

Visiting Julia’s Kitchen at the Smithsonian

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Cook. Learn. Live

Food & Nutrition Education - Cooking for Family Wellness

- History and evolution
- Community partnerships
- Media and recognition

http://www.nytimes.com/2015/02/22/n-yregion/in-westchester-offering-cooking-lessons-at-home.html?_r=0


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Some of Our Clients . . .
Our Services

- Public cooking classes and private custom classes
  - Emphasis on nutrition education through hands on cooking and discussion
  - Group programs for community organizations
- Individual counseling on weight management, healthy lifestyle nutrition interventions, and specialized dietary needs in partnership with other health professionals
  - ED Cooking for recovery
  - Family nutrition makeovers
  - Cooking for protective and therapeutic diets
  - Allergen alternatives, celiac, healthy vegan and vegetarian, and other alternative diets
  - Menu planning for specialized diet patterns such as FODMAP and DM carb awareness
- Consulting on menu design and implementation
In the Kitchen . . .

Cooking for Recovery
With Erica Leon, MS, RDN, CDN, CEDRD and Elyse Falk, MS, RD, CDN

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Individualized, client-centered approach

- Use strategies to engage clients in a collaborative approach
  - What foods/flavors do you enjoy? What would you like to try that you have never tasted?

- Recognize client’s strengths and limitations
  - Factors of knowledge, developmental level, intelligence, physical issues, economics, food security and accessibility, motivation and interest

- Culturally appropriate

- Address issues of and educate on food safety, hygiene, and sustainability and seasonality

- Integrate food science, technology, and other aspects as appropriate
Case Studies

- Eating Disorders
- Developmentally Disabled
- Community Programs
- Private Individual and Family Counseling
- Food Service Consulting
Eating Disorders

- **Cooking for Recovery partnership**
  - *Cooking for Recovery* with Erica Leon, MS, RDN, CDN, CEDRD and Elyse Falk, MS, RD, CDN
  - Monthly class providing hands-on cooking and supportive eating
  - Addresses “fear foods”, healthy plate, and portion sizes

- **CB case study**
  - 40 y/o female in recovery for anorexia, mother of 3 young boys, full time teacher, responsible for 99% of meal planning and preparation in her home
  - Worked on learning to incorporate her new strategies for healthy eating for herself with her family’s needs, building healthy eating habits for her family, working within her limitations
    - Hands on cooking instruction, meal planning, grocery shopping
  - Partner with her ED dietitian and therapist to provide coordinated care

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Developmentally Disabled Adults and Teens

- Experience working with four agencies providing support services for the DD population
  - Abilis, Community Centers of Greenwich, Select Human Services and WJCS – POINT
  - Specialized group cooking classes designed to meet skill levels and lifestyle needs of the participants

- MF case study
  - 35 y/o male with seizure disorder and autism, elevated total cholesterol
  - Lives independently with a roommate and receives 20 hours of community habilitation support weekly; works part time as a dishwasher; likes to cook but difficulty with planning and food choices
  - Monthly private session to work on cooking skills: recipe reading, meal planning, advance preparation, healthy shopping choices
  - Will be including community worker in next session to help support implementation of knowledge

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Community Programs

- Non-profit and community groups
  - Scout troops
  - Adult learning programs – houses of worship, social groups
  - PTA programs – parent presentations, wellness fairs

- Delta Kappa Gamma – Women Educators Honor Society
  - Alpha Pi chapter of Somers – current and retired teachers at various stages of life
  - Hands-on cooking and nutrition program offered at their spring meeting for five years, including their friends and family
  - September 2016 I presented at the regional DKG conference themed “Lifelong Learning” on “Food for Thought: Healthy Eating for a Healthy Brain”
    - 45 minutes on science and current research on the connection between diet and memory
    - 45 minutes cooking demo and tasting featuring omega-3, B6, B12, folate, probiotic foods, antioxidants, etc.
Private Individual and Family Counseling

- **JD heart healthy cooking**
  - 65 y/o woman; husband 67 y/o Dx with CVD and HTN
  - Traditional Italian-American cooking experience; needed help to tailor her cooking to his needs
  - Introduced to more of a southern Italian/Mediterranean palate, reworked existing recipes to be “heart healthy” and addressed portion sizes

- **HG Family – multiple food allergies and limited kitchen skills**
  - Mother of three children with various, not always overlapping food allergies
  - Minimal cooking experience but motivated to learn so that she could feed her kids
  - Instruction on basic cooking foundations – knife skills, sauté, steam, roasting
  - Substitution of ingredients to avoid allergens
Private Individual and Family Counseling, continued

- **P Family – family lifestyle focus**
  - Urged by pediatrician to get support to address overweight 10 y/o; picky eater with mild sensory issues
  - Combination of methods:
    - Family nutrition education on building a healthy plate, serving sizes, sometimes vs. always foods, role of macronutrients
    - Hands-on family cooking classes incorporating favorite foods and challenge foods
    - Parent coaching on mealtime strategies, planning, communication of food messages in the home

- **EJM family – FODMAP Meal Plan and education**
  - 7 y/o with Eosinophilic Esophagitis, IBS-C, and severe food allergies DX with SIBO
  - Mom asked for help to design a low-FODMAP diet that will increase his vegetable intake and meal diversity while addressing his allergies and restrictions
  - Incorporated safe takes on “fun” foods as well as new, flavorful techniques for incorporating vegetables; broadened mom’s food vocabulary to offer more options
Food Service Consulting

- The Fresh Air Fund – Sharpe Reservation Camps
  - Menu design for 5 summer camps and year-round education programs in compliance with National School Lunch Program and Summer Food Service Program Guidelines
  - Coordination with culinary team for food service program implementation
  - Allergen awareness and communication
  - Menu surveys and evaluation
  - Camp dietitian – nutrition education for outdoor ed programs, resource and support for cooking teachers and farm cooking educators, consulted with health staff on individual cases, provided individual counseling for adult staff members