Continuing Medical Education: Module 1

Subject: Introduction to Culinary Nutrition, Mediterranean Diet
Class Time: 3 hours
Audience: Practicing physicians, Nurse Practitioners, Physician Assistants, Registered Dietitians
Hours: 3 hour class
Class Size: 16 students/class, comprised of 8 groups of 2 students

Readings (required):


Readings (optional):

http://circ.ahajournals.org/content/120/17/1725.full.pdf+html


http://columbiamedicine.org/education/r/Cardiology/Outpatient-Prevention/HTN%20and%20Hyperlipidemia/DASH.pdf

Goals:

1. Present an overview of Mediterranean and DASH diets.
2. Cite the impact findings from the literature these diets can have in the prevention and treatment of diet-related illnesses.
3. Explain strategies needed to translate these culinary principles to patient counseling.
4. Demonstrate kitchen safety and knife handling skills.

Medical Nutrition Learning Objectives:

This lesson focuses on giving a basic introduction to the class on the concept of Culinary Medicine. The goal is to give students insight on the impact of medical interaction and intervention in the prevention and treatment of diet-related illnesses. Students will also learn basics on kitchen safety and knife handling skills.

1. Discuss the research benefits of the Mediterranean and DASH diets.
2. Provide a general description of the focus of each diet.
3. List the 9 diet fundamentals of the Mediterranean diet.
4. Describe the health benefits of each fundamental Mediterranean diet component.
5. Compare and contrast the DASH and Mediterranean diets.
6. Quote research based outcomes used to demonstrate effective diet/health connections.
7. Understand the basics of mindfulness and the potential effect on weight management, disease prevention/treatment and mood (quality of life).
8. Provide examples that relate the impact of diet and exercise to positive or negative health outcomes.
9. Defend the importance of a physician’s role in order to nurture healthy lifestyles and alleviate diet-related illness.
10. Summarize the positive physician impact points on patient lifestyle.
11. Translate evidence based facts to patient-level terms.
12. Educate patients on healthy menu strategies that are easily understood and user friendly.
13. Discuss the social and philosophical impacts on eating habits such as cost, availability, culture, education, location, religion, morality, etc. and the importance of relating to the audience/patient in these terms.

Culinary Nutrition Objectives:

1. Identify the “Culinary Nutrition Principles to Healthy Eating.”
2. Justify the importance of relating to your audience in terms of food, not nutrients to make healthier food choices.
3. Identify the 12 principles and incorporate them into discussions during patient counseling.
4. Demonstrate the basic culinary techniques and principles for the purposes of self-use and patient education.
5. Utilize sensory analysis techniques to evaluate the overall flavor, appearance, texture and smell of foods.
6. Identify methods of maintaining organization and safety in the kitchen to avoid cuts, burns and accidents.
7. Define basic culinary terms and incorporate them into conversation within the kitchen.
8. Demonstrate ability to read and follow a recipe.
9. Practice knife skills including proper hold, dicing and slicing.
10. Incorporate the basic concepts of healthy recipe conversion techniques and ingredients to make healthy, flavorful meals.
11. Identify quality ingredients and practice proper cooking techniques in preparing healthy, flavorful foods.
12. Utilize sensory analysis techniques to evaluate the overall flavor, appearance, texture and smell of foods.
13. Apply introductory concepts to a recipe.
14. Practice safe kitchen skills including proper sanitation and dishwashing techniques.
15. Identify strategies used as healthy alternatives.

Student Expectations Prior-Class (60 minutes):
1. Watch 15-30 minute video lecture covering medical and culinary objectives.
2. Review required journal article.
3. Complete online assessment quiz (reviewed by instructor prior to class) at least one day in advance of class. Instructor may choose to send a reminder to students.
4. Students who have not participated in a module will be expected to view the Kitchen Safety and Knife Skills video and quiz prior to attending class at the Goldring Center.

In-Class:

1. Review
10 minutes
Review of lesson content and gaps-in-knowledge as determined by pre-class quiz.

2. Case Study
20 - 30 minutes
Students will be assigned exercise questions individually or as a group, and will, utilizing resources, research answers to be discussed over mealtime.

3. 15 minutes
Tour/Demo

- Tour of Kitchen
- Review proper station set-up with expectation of students setting up their own stations.
- Review proper dishwashing and kitchen sanitizing techniques. Have sanitizer buckets set up throughout kitchen.
- Knife skills demonstration: proper knife holding technique, dicing an onion, julienning an onion, chopping garlic, slicing and dicing celery

4. Production
Students will prepare spaghetti and cut vegetables to practice knife skills.

Students will have the opportunity to apply the skills and lessons set forth in class by preparing and tasting multiple recipes in an open group setting. Instructors will offer assistance and feedback throughout the production and take advantage of teaching moments whenever possible. Recipes are variations in traditional versions vs. those of different calorie density, cooking techniques and nutrient content. Student teams will compare recipes during tasting.

**Exercise: Recipe Challenge - Spaghetti**

In this class, each group of students will be required to make separate recipes of a common comfort food - Spaghetti with Meat Sauce. The recipes will focus in the areas as outlined below. Students should be briefed that they are making similar dishes with different ingredients which will vary in taste, calorie and nutritional content.

**Group 1** - Traditional Spaghetti with Meat Sauce - no added vegetables
**Group 2** - Spaghetti with Meat Sauce with whole wheat pasta, reduced meat and added vegetables (including mushrooms)
**Group 3** - Spaghetti with whole wheat pasta, lentils & meat sauce
**Group 4** - Vegetarian spaghetti with lentils, mushrooms, added vegetables and whole wheat pasta

**During Preparation:**
- Encourage students to taste food throughout the cooking process to understand changes in texture and taste of foods.
- Assist students in proper knife and cooking technique.
- Have students clean as they go.
- Encourage concept “full hands in and out” of the kitchen.
- Find culinary nutrition teaching moments whenever possible.

**Post-meal:**
- Each group of students will be tasked with plating one single serving of their dish in proper serving portions, based on the serving size noted on the nutrition label. Allow students to pick whatever dish or bowl they choose, then placed on a table with a serving utensil and kept covered until meal time.
- The single serving of the dish should be displayed on the table in front of the correlating dish.
- Instructor should bring attention to the plated dishes and use this opportunity to discuss latest research on mindfulness. Review with students the following questions regarding healthy menu strategies and the social and philosophical impact of improving eating habits: How does the size of the bowl impact the perception of amount of food? How do the added vegetables impact the visual of the dish? How does the reduced use of meat impact the cost of the dish?
- Instructor should prompt each group to:
- describe their dish, with a focus on how they differ from the others.
- outline calorie, fiber and protein content of their dish.

• Focus on how adding vegetables and reducing meat makes dishes more visually appealing, lowers costs and vastly improves nutrition and how to relate this to patient education.
• Participants should be encouraged to serve themselves tasting portions of each dish, keeping in mind calorie content and serving size.

5. **Tasting and discussion**

30 minutes
While dining, class will review case study questions. This should be student-led with instructors providing feedback to build on subjects.

6. **Cleanup**

20 minutes
Trash
Dishes
Floor sweep & mop
Clean surfaces
Proper labeling and storage