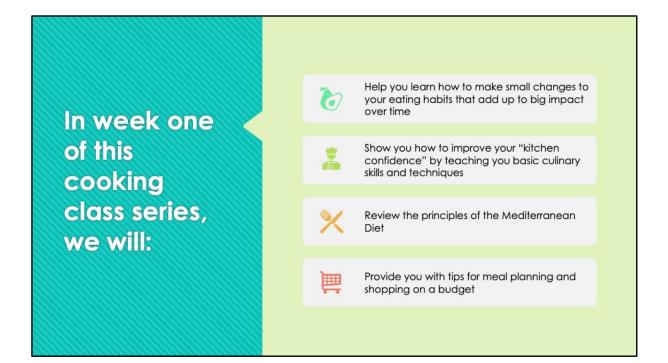
Week One: Introduction to Culinary Medicine & the Mediterranean Diet





## What is Culinary Medicine?

The art of food and cooking blended with the science of medicine and nutrition to provide evidence-based approaches to patient care

Emphasis on educating through a FOOD-FIRST approach, with a focus on including simple, high-quality ingredients

Multi-disciplinary approach – chefs, dietitians, medical students, etc.



Many people think that healthy eating is all about calories and body weight. In truth, the QUALITY of what you eat may be more important to your health. Weight loss may be a goal, but that is not the only, or most important, factor in eating for your health. Eating a balanced diet with a variety of nutrients is important and easy to do with the Mediterranean Diet.

There have been hundreds of studies to that show a diet full of ingredients such as beans, healthy fats, seafood and lean meats reduce the risk of many diseases.

In a 2007 NIH-AARP study, researchers followed participants over 5 years. The participants ate American recipes with Med Diet points awarded for their level of compliance to the diet. It's important to note that regardless of calories consumed, a higher Mediterranean Diet score was associated with reduction in all-cause mortality, including cancer and heart disease in both men and women.



# The Mediterranean diet does not mean only Mediterranean recipes

Uses a 9-point scoring system

Quality of ingredients and healthy portions are key

Food Group	How Much?	Sources Include	
Vegetables	2-3 cups per day	Dark Leafy greens, onion, carrot, squash, peppers, eggplant, asparagus, cucumber, tomatoes	The
Legumes	2 cups per week	Lentils, beans, peas, okra, chickpeas (garbanzo beans), peanuts	Mediterranean
	Fruit: 1-1½ cups per day	Apples, berries, cantaloupe, grapes, peaches, pineapple, citrus	<b>Diet: Nine Points</b>
Fruits and Nuts	Nuts: 1/4 cup per day	Cashews, almonds, pistachios, walnuts, pine nuts	
Cereals and Whole Grains	1 ½ cups per day ("whole" grain on ingredient list)	Brown rice, corn, whole wheat pastas, whole wheat breads, corn tortillas, oats, quinoa, farro, popcorn	<u>To track your score:</u> Give yourself 1 point for eac
Fish	At least 2 four-ounce servings per week	Cod, drum, tuna, salmon, crabs, clams, shrimp, scallops, oysters, mackerel	food group goal met daily/weekly in your diet
Oils and Fats	Choose plant-based fats over animal fats	Unsaturated oils such as olive, canola, sesame, sunflower, safflower, cottonseed	A 2-point improvement to yo score can result in a 25%
Dairy	Less than 1 cup (8 ounces) per day	Low fat and fermented: yogurt, cheese, kefir, cottage cheese, ricotta cheese	decrease in death from all causes, including heart
Meats	3-4 ounces (about 1 serving) per day	Pork tenderloin, lean ground beef, chicken breast or trimmed thigh Red Wine, distilled alcohol, and	disease and cancer
	Women: 1 drink per day	beer are all included but should be consumed with meals - avoid	(Trichopoulou NEJM 2003; 348:2599-2608)
Alcohol	Men: 2 drinks per day	binge drinking	

**Vegetables** – Even if you think you don't like a lot of veggies, start by making a list of all the ones you like and think of recipes you enjoy to see where you might be able to add them. Don't forget that onions, peppers, and mushrooms count – each vegetable provides your body with different vitamins and minerals that are essential to good health.

**Legumes** – Peanut butter on toast or hummus with veggies are easy ways to score a point for this food group. Legumes can be eaten on their own as side dishes and can also be added to more meat based main dishes for a great source of plant-based protein and lots of FIBER.

**Fruits & Nuts** – Fruit juice should be avoided because of the lack of fiber that you get when eating whole fruit (important for balancing blood sugar and satiation). Not a big fruit eater? Think of adding fruit to savory dishes (ex: mango salsa, berries in a salad, or dried fruit in rice/grain dishes), Nuts make a great snack for people who crave salty snacks. You'll just need to be mindful of portions for nuts as they are high in calories (but also nutrient dense). Nuts also make a great crunchy addition to many dishes like salads and grain dishes.

**Cereals & Whole Grains** – Check the ingredient list on products like bread and cereal: look for "whole grain" or "whole wheat" (don't pay too much attention to health claims on the front of the package – these are less important than the actual ingredients). Aim for 2-3 servings per day of whole grains. Look for easy swaps from refined grains (bread, pasta) but

also try new options like quinoa and corn tortillas for variety.

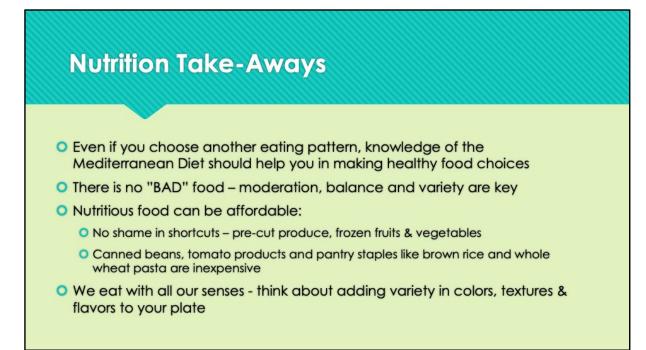
**Fish** – Fatty fish like salmon and tuna has the highest level of Omega-3 fats which are protective to the heart. They lower LDL (bad) and raise HDL (good) cholesterol. It's important to eat what you like and make sure to consider preparation method (avoid fried fish and seafood and opt for broiled or grilled when possible). Don't forget about canned fish (just watch added sodium)!

**Oils & Fats** - The goal is a balance in the ratio of unsaturated to saturated fats, ideally 1.6 to 1 - about 1.5 times the level of unsaturated fat (olive, canola oil, avocados, nuts/seeds) than saturated (butter, coconut, meat, dairy sources).

**Dairy** – Dairy is consumed less in Mediterranean countries. For example, they don't drink milk as a beverage and most dairy consumed is fermented like cheeses and yogurt. Choose low-fat over full-fat varieties, when possible.

**Meats** – Choose lean cuts and avoid processed meats (hot dogs, bologna). The standard American diet involves meat often being the star of most meals. Researchers have found that less than 4oz of meat per day is optimal for Med Diet score. This can be accomplished by moving meat to a supporting role on the plate and filling up with more veggies, legumes, and whole grains.

**Alcohol** – You've probably heard that wine is good for you in moderation. Alcohol is commonly consumed in the Med Diet with meals. Don't start drinking now if you don't already, but research indicates that a very moderate consumption can have protective health benefits.



We like the Mediterranean Diet because it is easy to incorporate the points into a typical American diet and each small change can add up to big results over time. Since it focuses more on what foods to include (vs. focusing on restriction of food groups or individual foods labeled as "bad" or off-limits), most people find it a sustainable way of eating that becomes more of a lifestyle than a diet. At the end of the day, this is the reason that most "diets" don't work. If a diet or eating plan is too restrictive, it's unlikely that you will be able to stick with it for the long term. Research shows that there is no one diet that is perfect for everyone and that finding the eating plan that you can make a lifestyle is key for success with weight loss as well as maintaining overall health.



## **Nutrition and Culinary Considerations**

GCCM targets (per meal)			
Calories	ories < 500 kcal		
Saturated Fat	ed Fat < 5 g		
Sodium	m < 550 mg 5-10 g		
Fiber			

#### **Cooking Techniques:**

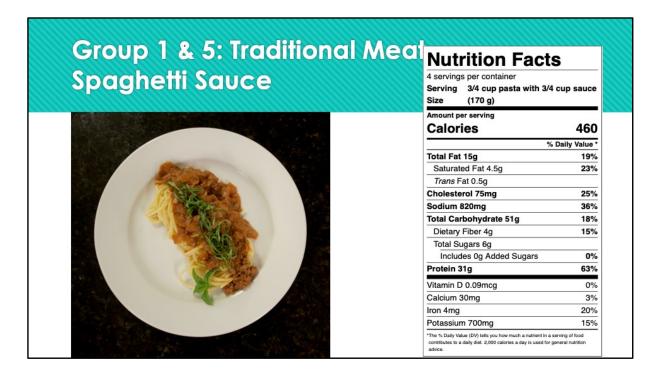
- Increasing vegetables
- Incorporating legumes and whole grains
- Reducing meat portions
- Using flavor building methods & ingredients to make tasty food that is low in calories, fat, and sodium

Let's take a look at the results on visual appeal, texture and overall taste of the dishes we made!



Recipe: Mixed greens, carrot, green onion, feta cheese, sunflower seeds with homemade red wine vinaigrette – extra virgin olive oil, red wine vinegar, Dijon mustard, honey, garlic powder, dried thyme and oregano, salt & pepper

Traditional vinaigrettes use a 3:1 ratio for oil to vinegar. We use a 2:1 ratio which results in a lower calorie, tangier dressing, but we've balanced the flavor with a little honey. Dressing can be made in a large batch and will keep in the refrigerator for up to one week. Uses high quality olive oil full of heart healthy monounsaturated fats, low in sodium and sugar (commonly high in bottled dressings).



Recipe: Ground beef + onion + store-bought tomato sauce + Italian seasoning, served over white spaghetti

High in calories, fat, saturated fat, SODIUM, cholesterol, and low in fiber.

We can probably do better....

Price per serving: \$2.25

Group 2 & 6: Meat & Ve		6 servings per container Serving 3/4 cup spaghetti with 3/4 cup Size sauce (170 g)	
Spaghetti Sauce	Serving 3/4 cup spaghetti with 3/4 cu		
	Amount per serving Calories	330	
	% Daily V	alue *	
	Total Fat 7g	9%	
	Saturated Fat 1.5g	8%	
	Trans Fat 0g		
	Cholesterol 25mg	8%	
	Sodium 420mg	18%	
	Total Carbohydrate 50g	18%	
the second second second	Dietary Fiber 7g	25%	
	Total Sugars 7g		
	Includes 0g Added Sugars	0%	
	Protein 17g	34%	
	Vitamin D 0.06mcg	0%	
	Calcium 30mg	2%	
	Iron 2mg	10%	
	Potassium 600mg	12%	

Recipe: 8 oz. ground beef (instead of a full pound) + onion, bell pepper, mushrooms, celery, tomato sauce, Italian seasoning, garlic, Worcestershire sauce (umami), served over whole wheat spaghetti

Lower in calories, fat, saturated fat, sodium, cholesterol, and higher in fiber

Price per serving: \$1.53

Group 3 & 7: Meat & Lentil Spaghetti Sauce	Servings per container         Serving 3/4 cup spaghetti with 3/4 cup         Size       sauce (170 g)	
	Amount per serving Calories	390
	% [	Daily Value *
	Total Fat 7g	9%
	Saturated Fat 1.5g	8%
	Trans Fat 0g	
	Cholesterol 25mg	8%
AT STAR AND AND	Sodium 460mg	20%
	Total Carbohydrate 61g	22%
	Dietary Fiber 9g	32%
A CARLES AND A CAR	Total Sugars 7g	
	Includes 0g Added Sugars	0%
	Protein 21g	42%
	Vitamin D 0.04mcg	0%
	Calcium 40mg	3%
	Iron 3mg	16%
	Potassium 600mg	13%

Recipe: 8 oz. ground beef (instead of a full pound) + lentils, onion, bell pepper, mushrooms, celery, tomato sauce, Italian seasoning, garlic, Worcestershire sauce (umami), served over whole wheat spaghetti

A little higher in calories (beans), low in fat, saturated fat, sodium and higher in fiber

This recipe also yields more food and costs less

Price per serving \$1.72



Recipe: NO meat, lentils, onion, bell pepper, mushrooms, celery, tomato sauce, Italian seasoning, garlic, Worcestershire sauce (umami), served over whole wheat spaghetti

Low calories and fat, NO saturated fat, NO cholesterol, low sodium and high in fiber

Price per serving: \$1.35

## **Nutrition & Price Comparison**

#### Spaghetti 1 \$2.25/serving

Spaghetti 2	
\$1.53/serving	

#### Nutrition Facts 4 servings per container Serving 3/4 cup pasta with 3/4 cup sauce Size (170 g) Amount per serving 460 460 hally Value \* 19% 23% Calories CallOrIES Total Fat 15g Saturated Fat 4.5g Trans Fat 0.5g Cholesterol 75mg Sodium 820mg Total Carbohydrate 51g Dietary Fiber 4g Total Sugars 6g includes 0g Added Sugars Protein 31g Vitamin D 0.09mcg Calcium 30mg Inon.4mg Inon.4m 25% 36% 18% 15% 0% 63% 0% 3% 20% Ton 4mg Potassium 700mg The % Delty Value (71) Tells you her centritudes to a clefy clef, 2,000 cas action. ted.

### **Nutrition Facts** 6 servings per container Serving 3/4 cup spaghetti with 3/4 cup Size sauce (170 g) Amount per serving Calories 333 330 Value \* 9% 8% Calorites Total Fat 7g Saturated Fat 15g Trans Fat 0g Cholesterol 25mg Collegation 25mg Total Cardohydrate 50g Dietary Fiber 7g Total Support 7g Total Support 7g Total Support 7g Total Support 7g Vitamin D 6.06mg Calcium 30mg Fotassium 600mg Potassium 600mg 8% 18% 18% 25% 0% 34% 0% 2% 10% 12% ind .

#### Spaghetti 3 \$1.72/serving

**Nutrition Facts** 6 servings per container Serving 3/4 cup spaghetti with 3/4 cup Size sauce (170 g) ing 390 Value \* 9% 8% Calories Caliortes
Total Fat 7g
Saturated Fat 1.5g
Trans Fat 0g
Cholesterol 25mg
Sodium 660mg
Total Carbohydrate 61g
Dietary Fiber 9g
Total Carbohydrate 61g
Vitamin D 0, 64mcg
Calcium 40mg
Fordein 21g
Vitamin D 0, 64mcg
Calcium 40mg
Fordein 31g 8% 20% 22% 32% 0% 42% 0% 3% 16% 13%

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#### Spaghetti 4 \$1.35/serving

8 servings per container				
Serving 3/4 cup spaghetti with 3/4 cup Size sauce (170 g)				
Amount per serving				
Calories	350			
2	Daily Value			
Total Fat 3g	4%			
Saturated Fat 0g	0%			
Trans Fat 0g				
Cholesterol 0mg	0%			
Sodium 330mg	14%			
Total Carbohydrate 66g	24%			
Dietary Fiber 10g	34%			
Total Sugars 6g				
Includes 0g Added Sugars	0%			
Protein 16g	31%			
Vitamin D 0.02mcg	0%			
Calcium 30mg	2%			
iron 3mg	14%			
Potassium 500mg	11%			

Thank you for joining us and we look forward to seeing you next week for our Week 2 lesson on Breakfast & Nutrition Labels!

For More Recipes and Resources, visit: https://goldringcenter.tulane.edu/