

**Week One:
Introduction to
Culinary
Medicine & the
Mediterranean
Diet**



**The Goldring Center
for Culinary Medicine**

TULANE UNIVERSITY

**In week one
of this
cooking
class series,
we will:**



Help you learn how to make small changes to your eating habits that add up to big impact over time



Show you how to improve your "kitchen confidence" by teaching you basic culinary skills and techniques



Review the principles of the Mediterranean Diet



Provide you with tips for meal planning and shopping on a budget

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.

The Mediterranean Diet is about ingredients!



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
Legumes	2 cups per week	Lentils, beans, peas, okra, chickpeas (garbanzo beans), peanuts
Fruits and Nuts	Fruit: 1- 1 ½ cups per day	Apples, berries, cantaloupe, grapes, peaches, pineapple, citrus
	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
Fish	At least 2 four-ounce servings per week	Cod, drum, tuna, salmon, crabs, clams, shrimp, scallops, oysters, mackerel
Oils and Fats	Choose plant-based fats over animal fats	Unsaturated oils such as olive, canola, sesame, sunflower, safflower, cottonseed
Dairy	Less than 1 cup (8 ounces) per day	Low fat and fermented: yogurt, cheese, kefir, cottage cheese, ricotta cheese
Meats	3-4 ounces (about 1 serving) per day	Pork tenderloin, lean ground beef, chicken breast or trimmed thigh
Alcohol	Women: 1 drink per day Men: 2 drinks per day	Red Wine, distilled alcohol, and beer are all included but should be consumed with meals - avoid binge drinking

The Mediterranean Diet: Nine Points

To track your score:
Give yourself 1 point for each food group goal met daily/weekly in your diet

A 2-point improvement to your score can result in a 25% decrease in death from all causes, including heart disease and cancer

(Trichopoulos NEJM 2003; 348:2599-2608)

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.

Nutrition Take-Aways

- Even if you choose another eating pattern, knowledge of the Mediterranean Diet should help you in making healthy food choices
- There is no "BAD" food – moderation, balance and variety are key
- Nutritious food can be affordable:
 - No shame in shortcuts – pre-cut produce, frozen fruits & vegetables
 - Canned beans, tomato products and pantry staples like brown rice and whole wheat pasta are inexpensive
- We eat with all our senses - think about adding variety in colors, textures & flavors to your plate

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.

Tips for Shopping & Meal Planning

- You'll likely be eating 21 meals plus snacks throughout the week – you need a game plan!
- Before you head to the store, take an inventory of your fridge, freezer, and pantry to make your shopping list – try to use items you have on hand to start building your meal plan
- Cross utilize perishable items whenever possible to minimize waste and save money
- Having a well stocked pantry and freezer will allow you to focus weekly shopping trips on the store's perimeter – produce, meat, dairy

Nutrition and Culinary Considerations

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

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!

Salad with Red Wine Vinaigrette



Nutrition Facts

8 servings per container

Serving 1 cup salad with 1 Tbsp

Size dressing (54 g)

Amount per serving

Calories **80**

% Daily Value *

Total Fat 7g **8%**

Saturated Fat 1g **6%**

Trans Fat 0g

Cholesterol less than 5 mgmg **0%**

Sodium 125mg **5%**

Total Carbohydrate 4g **0%**

Dietary Fiber 1g **5%**

Total Sugars 1g

Includes 0g Added Sugars **0%**

Protein 2g **4%**

Vitamin D 0mcg **0%**

Calcium 10mg **0%**

Iron 0.23mg **0%**

Potassium 66mg **0%**

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

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).

Group 1 & 5: Traditional Meat Spaghetti Sauce



Nutrition Facts

4 servings per container	
Serving Size	3/4 cup pasta with 3/4 cup sauce (170 g)
Amount per serving	
Calories	460
% Daily Value *	
Total Fat 15g	19%
Saturated Fat 4.5g	23%
Trans Fat 0.5g	
Cholesterol 75mg	25%
Sodium 820mg	36%
Total Carbohydrate 51g	18%
Dietary Fiber 4g	15%
Total Sugars 6g	
Includes 0g Added Sugars	0%
Protein 31g	63%
Vitamin D 0.09mcg	0%
Calcium 30mg	3%
Iron 4mg	20%
Potassium 700mg	15%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

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 & Vegetable Spaghetti Sauce



Nutrition Facts

6 servings per container	
Serving Size	3/4 cup spaghetti with 3/4 cup sauce (170 g)
Amount per serving	
Calories	330
% Daily Value *	
Total Fat 7g	9%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 25mg	8%
Sodium 420mg	18%
Total Carbohydrate 50g	18%
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%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

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



Nutrition Facts

6 servings per container

Serving Size 3/4 cup spaghetti with 3/4 cup 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%**

Sodium 460mg **20%**

Total Carbohydrate 61g **22%**

Dietary Fiber 9g **32%**

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%**

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

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

Group 4 & 8: Vegetarian Lentil Spaghetti Sauce



Nutrition Facts

8 servings per container	
Serving Size	3/4 cup spaghetti with 3/4 cup sauce (170 g)
Amount per serving	
Calories	350
% 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%

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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

Nutrition Facts

4 servings per container	
Serving Size	3/4 cup pasta with 3/4 cup sauce (170 g)
Amount per serving	
Calories	460
% Daily Value *	
Total Fat 15g	19%
Saturated Fat 4.5g	23%
Trans Fat 0.5g	
Cholesterol 75mg	25%
Sodium 820mg	36%
Total Carbohydrate 51g	18%
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Spaghetti 2 \$1.53/serving

Nutrition Facts

6 servings per container	
Serving Size	3/4 cup spaghetti with 3/4 cup sauce (170 g)
Amount per serving	
Calories	330
% Daily Value *	
Total Fat 7g	9%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 25mg	8%
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Spaghetti 3 \$1.72/serving

Nutrition Facts

6 servings per container	
Serving Size	3/4 cup spaghetti with 3/4 cup 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%
Sodium 460mg	20%
Total Carbohydrate 61g	22%
Dietary Fiber 9g	32%
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Iron 3mg	16%
Potassium 600mg	13%

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Spaghetti 4 \$1.35/serving

Nutrition Facts

8 servings per container	
Serving Size	3/4 cup spaghetti with 3/4 cup sauce (170 g)
Amount per serving	
Calories	350
% Daily Value *	
Total Fat 3g	4%
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Trans Fat 0g	
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Iron 3mg	14%
Potassium 500mg	11%

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**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/>