



The Power of Protein

Live Long, Live Well
Healthy Tips for Vibrant Aging

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Disclosures to Participants

Notice of Requirements for Successful Completion:

Learners must participate in the full activity and complete the evaluation in order to claim continuing education credit/hours.

Presenter has No - Conflicts of Interest/Financial Relationships Disclosures:

Cindy Kleckner

Disclosure of Relevant Financial Relationships and Mechanism to Identify and Mitigate Conflicts of Interest: No conflicts of interest

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Objectives

- Trace the evolution of the guidelines and practice standards of the DASH Diet, the MIND Diet, the Mediterranean Diet and the Dietary Guidelines for Americans using evidence-based recommendations
- Examine the principles of the various eating patterns in health aging
- Provide an overview of protein and muscle in aging and the role nutrition plays in sarcopenia
- Illustrate practical ways to help patients implement a healthy eating program for vibrant aging with emphasis on protein

Aging Adult Population

- Seniors are considered adults aged 60 or older, the age at which community-based feeding programs begin eligibility
- According to data from the 2020 Profile of Older Americans, the number of people who are older than 60 is 74.6 million, a 34% increase in the past decade
- Prediction: older adults will be 25% of the population by 2050 in most continents

Factors Affecting Healthy Aging

- Genetics
- Physical activity
- Diet quality and nutrition status
- Quality sleep
- Smoking cessation
- Access to medical care
- Mental health



Physical Health

- Exercise and Physical Activity
 - Walking 8,000 steps or more per day is associated with a 51% lower risk of death from all causes
 - Moderate to vigorous physical activity is strongly associated with decline in muscle function
 - In adults older than 55, muscle mass is a better predictor of longevity than weight and body mass index (BMI)
- Healthy Diet
 - Making smart choices can help protect against chronic disease, increase muscle function and improve brain function



Physical Health cont.

- Sleep quality matters for health, memory and mood
 - Poor sleep quality affects problem-solving and concentration, increases risk of developing dementia later in life and greater risk of early death
 - Getting 6 hours or less hours/night increases risk of developing dementia
- Smoking cessation
 - Research confirms that smoking cessation improves health by lowering risk of cancer, heart attack, stroke, lung disease, improves blood circulation, sense of taste and smell and increases ability to be active

Physical Health Cont.

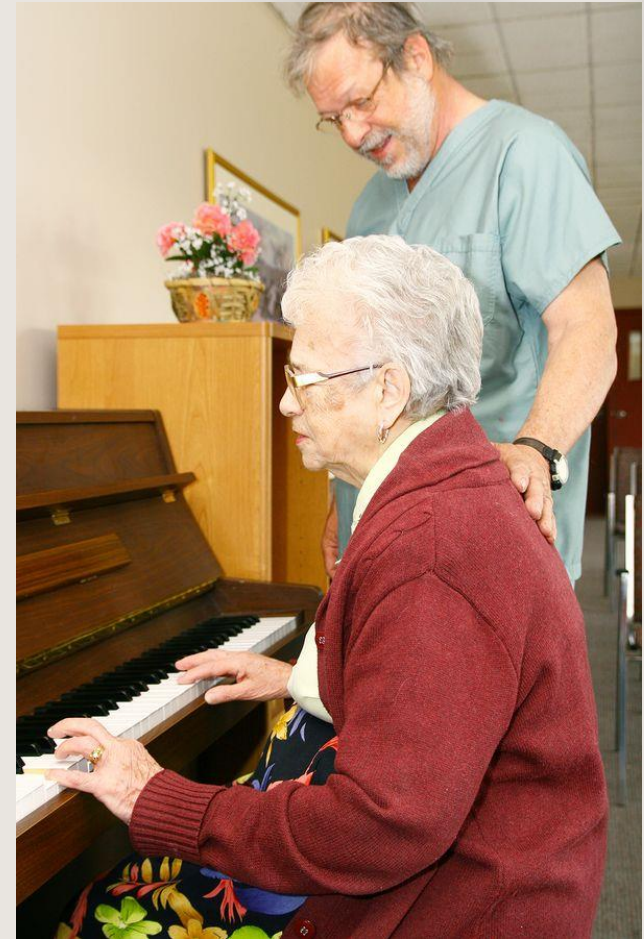
- Limit/avoid alcohol
 - Alcohol dependence affects every organ in the body including the brain, heart and accelerates aging
 - Effects of alcohol experienced more quickly
- Access to medical care
 - Getting regular check-ups and screenings can help reduce risk factors for chronic diseases, improve quality of life and well-being

Mental Health

- Manage social isolation, loneliness, depression, and stress through medical and self-care
 - Social isolation causes increased risk for heart disease, depression and cognitive decline
 - Chronic stress can affect physical and psychological well-being, cause problems with insomnia, changes in the brain, muscle pain, high blood pressure and weakened immune system
 - Depression can affect mental and physical health, increases risk for heart disease and metabolic disorders

Cognitive Health

- Research shows that brain stimulation and maintaining ability to think clearly, learn new skills, and remember is affected by many lifestyle factors and may reduce risk of cognitive decline
- Making small changes in healthy lifestyle behaviors like controlling high blood pressure can lower risk for developing Alzheimer's
- Cognitive training can improve health outcomes



Diet-Related Health Concerns

- Age-related muscle loss and strength
- Altered metabolic processes, increasing risk for diabetes, CVD, cancers, chronic respiratory disease
- Cellular damage including oxidative stress and inflammation
- Nutrient deficiencies such as inability to absorb Vit B12 and malnutrition
- Hydration status
- Multiple barriers affect diet and food choice:
 - Food insecurity, emotional and mental loads, chronic disease, sleep hygiene, physical activity, housing, retirement age/ability
 - Hellenic Longitudinal Investigation of Aging and Diet Study – elevated nutrition risk is directly correlated with marital status

Age-Related Muscle Loss and Strength

- **Sarcopenia** - age-related, progressive loss of skeletal muscle and strength; decreases 3-8% per decade after age 30 and rate accelerates after age 60
- Obesity and Type 2 Diabetes with inactivity can increase loss of muscle mass
- Weak muscles increase risk of falls, bone breaks, disability and depression
- **Causes** - changes in hormone levels for women and drop in testosterone in men and women along with insulin resistance, oxidative stress, low-grade systemic inflammation and sedentary lifestyle contribute to muscle loss and insufficient protein intake

Treatment

- **Exercise:** aerobic, resistance and balance training 20-30 minutes, 3 times/week
- Free weights, weight machines, resistance bands and using own body weight
- Start slow; make it challenging
- Medicare offers free videos and workshops on strength training
- **Diet:** Current RDA for Protein is 0.8-1.0g/kg/day or 54g/day for 150-lb person
- For optimal muscle health with resistance exercise: 1.2-1.5g/kg/day or 109-204g/day
- 8-10g pro/snack and 20-25g/meal
- Animal protein provides more muscle building amino acids, such as leucine due to increased bioavailability

Malnutrition

- Malnutrition is present in at least 22% of this population which leads to:
 - Decreased bone and muscle mass
 - Changes in oral health
 - Altered sense of taste and smell
 - Reduction in cognitive function
 - Increased frailty
 - Social and emotional change like loneliness and isolation
 - Exacerbation of pre-existing chronic illness

Malnutrition Identified

- Published in the 2019 Global Leadership Initiative on Malnutrition
- A formal diagnosis requires one physical and one biological symptom:
 - Loss of $>5\%$ of body weight in last 6 months or $>10\%$ in over 6 months
 - Low BMI: $<20\text{kg}/\text{m}^2$ if <70 years, or $<22\text{kg}/\text{m}^2$ if >70 years
 - Decrease in muscle mass using validated body composition techniques
 - Changes in oral health
 - Dietary intake decreases to $\leq 50\%$ of energy requirements within a week or any reduction in 2 or more weeks
 - Experience a chronic GI condition

Food Insecurity

- Food insecurity is associated with less access to food which can lead to decreased nutrient intake and difficulty managing chronic disease
- The State of Senior Hunger, a report published by Feeding America in 2022 evaluated rates of food insecurity and very low food security using the Food Security Supplement from the USDA;
 - 6.8% of seniors are food insecure (29% increase)
 - 2.6% of seniors are classified as having very low food security (84% increase)



Nutrition Needs for Healthy Aging

Nutrition Needs For Healthy Aging 65 and Older

- **Calorie** intake 25-30calories/kg body weight
- **Protein** 1g/kg or approx. 57g/day for women and 67g/day for men
- Protein for 70 and older or acute or chronic illness, up to 1.2g - 1.5g/kg body weight
- Consuming even dispersion of protein throughout the day aids in anabolism and prevention of muscle loss and strength: 25-30g dietary protein/meal to ensure adequate muscle protein synthesis and prevent sarcopenia muscle loss

Daily Protein Recommendation

Daily Recommendations in Ounce-Equivalents (oz-equiv)		
Toddlers	12 to 23 months	2 oz-equiv
Children	2-3 yrs	2 to 4 oz-equiv
	4-8 yrs	3 to 5½ oz-equiv
Girls	9-13 yrs	4 to 6 oz-equiv
	14-18 yrs	5 to 6½ oz-equiv
Boys	9-13 yrs	5 to 6½ oz-equiv
	14-18 yrs	5½ to 7 oz-equiv
Women	19-30 yrs	5 to 6½ oz-equiv
	31-59 yrs	5 to 6 oz-equiv
	60+ yrs	5 to 6 oz-equiv
Men	19-30 yrs	6½ to 7 oz-equiv
	31-59 yrs	6 to 7 oz-equiv
	60+ yrs	5½ to 6½ oz-equiv

1-ounce equivalents:

1-ounce of meat, poultry or fish
 ¼ cup cooked beans
 1 egg
 1 tablespoon of peanut butter
 ½ ounce of nuts or seeds
 ¼ cup (about 2 ounces) of tofu
 1 ounce tempeh, cooked

Protein

- Key Functions:
 - Building blocks for bones, muscles, cartilage, skin and blood; for enzymes, hormone and vitamins
 - Appetite regulation
 - Weight loss
 - Blood sugar management
 - Improve cognitive health



Protein

- Provide B vitamins (niacin, thiamin, riboflavin, B6) to help build tissue and aid in forming red blood cells
- Vitamin E involved in the cell antioxidant defense system
- Iron can prevent anemia
- Zinc supports immune system
- Vitamin D
- Unsaturated fat, omega-3 fatty acids



Protein Sources

Food	Serving Size	Protein (grams)
Ground beef, 95% lean	3½ oz	24
Black beans	1½ cup	24
Tuna, canned	3½ oz	24
Shrimp, raw	3½ oz	24
Chicken breast, raw	3½ oz	23
Salmon, cooked	3½ oz	23
Greek yogurt, plain	7 oz	20
Cottage cheese, 2%	½ cup	12
Cooked lentils	½ cup	9
Milk, skim	8 oz	8
Peanut butter	2 Tbsp	8
Almonds	1 oz	6
Egg	1 large	4

Protein Sources

Animal-based Protein

- Beef, pork, lam, veal, poultry
- Dairy - eggs, milk, yogurt

Seafood

- Finfish, shellfish, canned fish
- Provides omega-3 fatty acids, EPA and DHA
- Some fish are natural sources of Vitamin D

Plant-based Protein

- Beans, peas, lentils, nuts, seeds, nut and seed butters, soy products- tofu, tempeh
- Provide dietary fiber

Benefits of Beef for Older Adults

BOLD Beef in an Optimal Lean Diet Eating Lean Beef Daily Can Help Lower Cholesterol As Part of a Heart-Healthy Diet

The latest research on heart health and lean beef presents a new way of thinking: lean beef can be part of a solution to one of America's greatest health challenges. A study published in the *American Journal of Clinical Nutrition* demonstrated that a diet including lean beef every day is as effective in lowering total and LDL "bad" cholesterol as the gold standard heart-healthy diet (DASH, Dietary Approaches to Stop Hypertension).¹

The Beef in an Optimal Lean Diet (BOLD) clinical study (Effects on Lipids, Lipoproteins and Apolipoproteins),¹ conducted by The Pennsylvania State University researchers, evaluated adults with moderately elevated cholesterol levels, measuring the impact of diets including varying amounts of lean beef on total and LDL cholesterol levels. Study participants experienced a 10 percent decrease in LDL cholesterol compared to baseline in two different beef diets. The BOLD diet contained 4.0 oz. of lean beef and the BOLD-PLUS diet contained 5.4 oz. (weights before cooking) of lean beef daily with both diets providing less than 7% of calories from saturated fat. After five weeks, there were significant reductions in total and LDL cholesterol.¹ Many of the BOLD and BOLD-PLUS diet menu plans incorporated recipes from *The Healthy Beef Cookbook*.

The study used rigorously designed research—a Randomized Controlled Clinical Intervention Trial—to investigate the effects of cholesterol-lowering diets with varying amounts of lean beef. In this study, 36 participants (adults ages 30-65 with moderately elevated cholesterol) were randomly assigned to a treatment order and in a cross-over design, consumed a total of four diets (BOLD, BOLD-PLUS, DASH and Healthy American Diet (HAD) as control) for five weeks each.

The BOLD study is the latest addition to a body of evidence that supports including lean beef in a heart-healthy diet. To learn more about this study please visit BeefNutrition.org.

Nutritional Breakdown of Study Diets

	HAD	DASH	BOLD	BOLD-PLUS
Calories	2,097 kcal	2,104 kcal	2,100 kcal	2,104 kcal
Protein (% of total calories)	17%	18%	19%	27%
Carbohydrate (% of total calories)	50%	55%	54%	45%
Fat (% of total calories)	33%	27%	28%	28%
Saturated Fat (% of total calories)	12%	6%	6%	6%
Monounsaturated Fat (% of total calories)	11%	9%	11%	12%
Polysaturated Fat (% of total calories)	7%	8%	7%	7%
Lean Beef (oz./day) [*]	0.7	1.0	4.0	5.4

^{*}Weight before cooking

Healthy American Diet (HAD):

Control diet, included more refined grains, full-fat dairy products, oil and butter to reflect current American dietary habits.

Dietary Approaches to Stop Hypertension (DASH):

Considered the "gold standard" heart-healthy diet, this eating plan featured vegetables, fruits and low-fat dairy and limited red meat and sweets.

Beef in an Optimal Lean Diet (BOLD):

Similar to the DASH diet (rich in vegetables, fruits, whole grains, nuts and beans) and protein amount, but used lean beef (4 oz./day) as the primary protein source, whereas the DASH diet used primarily white meat and plant protein sources.

Beef in an Optimal Lean Diet Plus (BOLD-PLUS):

Similar to the BOLD diet, but with higher protein and lean beef intake (5.4 oz./day).



Fat



- Fats are essential to maintain cellular structure and provide energy
- Unsaturated fat is preferred to decrease risk of CVD, reduce inflammation, maintain muscle mass, improve insulin resistance and lower overall mortality risk
- Polyunsaturated fats, like omega-3 and omega-6 are found in fatty fish, plant-based oils, nuts, seeds and avocados

Carbohydrates

- Carbs include whole grains, dairy products, starchy and non-starchy vegetables, fruits and legumes
- Whole grains are preferred to provide dietary fiber. The Dietary Reference Intake for men >51 y.o. is 31g/day and women >51 y.o. is 21g/day
- Excellent sources include 100% whole wheat bread, whole grains: millet, brown rice, amaranth, beans, peas, and lentils
- Dietary fiber helps alleviate chronic constipation, aids in digestion and blood sugar control



Fluids



- Decreased thirst, combined with limited mobility and potential bladder control issues can lead to dehydration, digestion and absorption issues leading to nutrient deficiencies
- Recommendation:
 - Approx. 2.7 liters/day females
 - 3.7 liters of fluid/day males

Micronutrients of Concern

- **Calcium** – needs range 1,000-1,300mg/day. Adding calcium-rich foods help prevent potential fracture and asymptomatic deficiency
- **Zinc** – deficiencies are associated with decrease appetite, cognition, suppressed immune response and increased muscle catabolism
- **Vitamin B12** – requires intrinsic factor to be absorbed; lack of B12 can lead to pernicious anemia and neurologic complications
- **Vitamin D** – responsible for maintaining bone health and aids in healthy metabolic processes and function
- **Iron** – primary role to carry oxygen in the hemoglobin of red blood cells between tissues where it produces energy



Healthy Eating Patterns

Science-based, timeless, relevant and sustainable

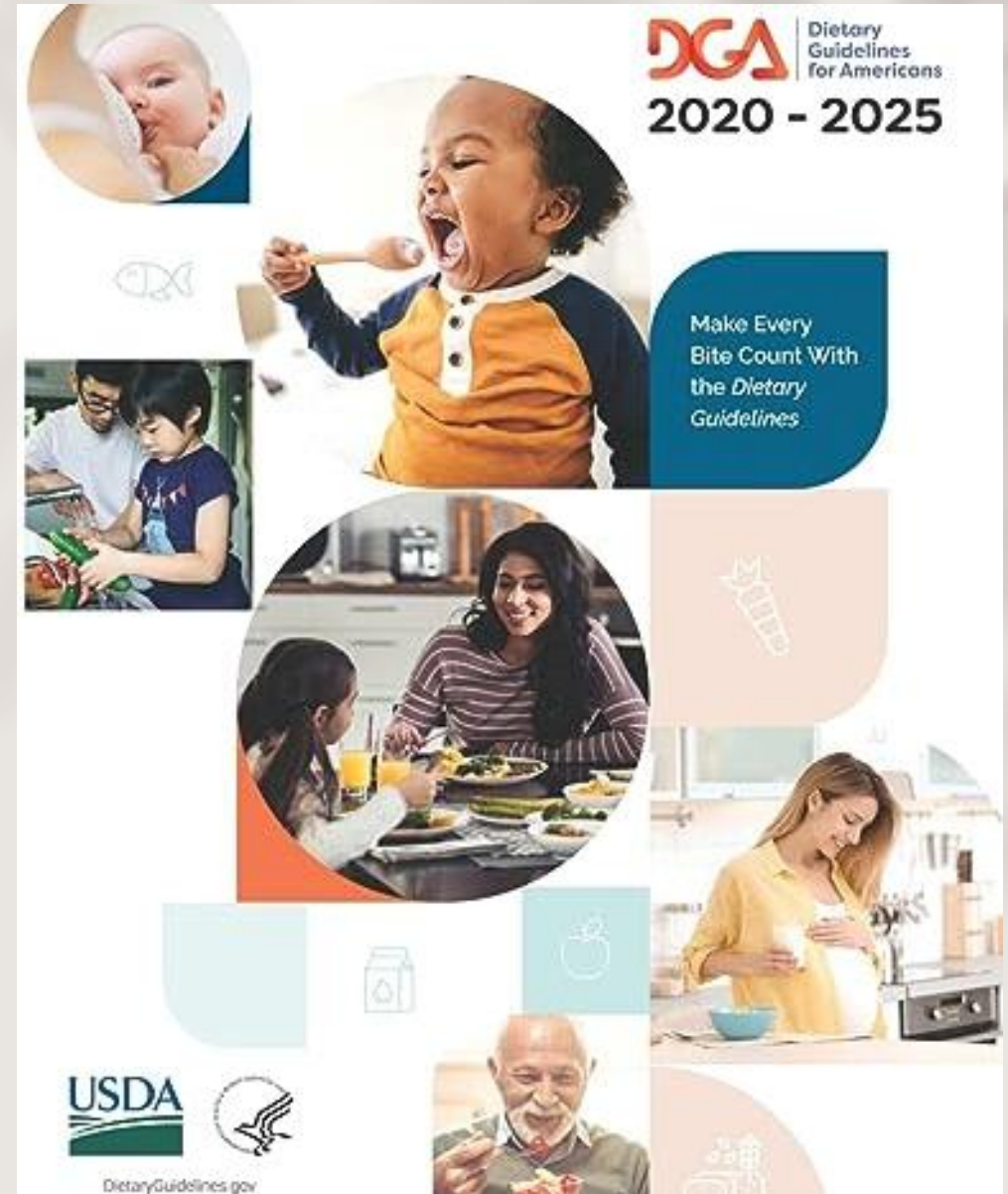
“Best Overall Diets”

- In January, 2024 *U.S. News and World Report* published review of 35 diets designed to improve health and well-being and awarded the Mediterranean, DASH and MIND Diets: Best overall, best healthy eating, best for bone and joint health, best to manage diabetes
- The publication bases these designations on several criteria:
 - ✓ Nutritional value
 - ✓ Heart Health
 - ✓ Diabetes
 - ✓ Safety
 - ✓ Ease of use
 - ✓ Effectiveness for short- and-long-term weight loss



2020-2025 Dietary Guidelines for Americans

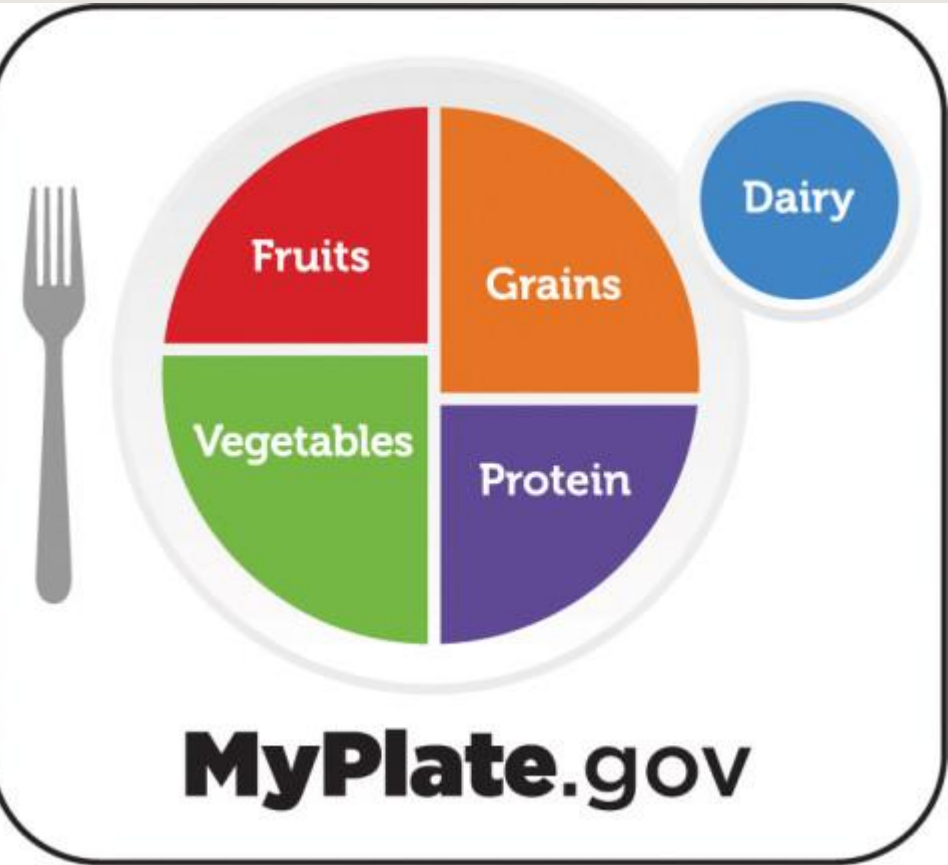
- www.dietaryguidelines.gov
- DGA provide healthy eating recommendations for each stage of life and includes all the food groups



About the *Dietary Guidelines for Americans*

- The *Dietary Guidelines* provides science-based advice on what to eat and drink to promote health, help reduce risk of chronic disease, and meet nutrient needs
- Serves as the cornerstone of federal nutrition programs and policies.
- Mandated to reflect the preponderance of scientific evidence, and published jointly by USDA and HHS every five years
- Written for a professional audience, including policymakers, healthcare professionals, nutrition educators, and federal nutrition program operators

Choose My Plate



1 Follow a healthy eating pattern across the lifespan. All food and beverage choices matter. Choose a healthy eating pattern at an appropriate calorie level to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease.

Follow a healthy eating pattern over time to help support a healthy body weight and reduce the risk of chronic disease.

A healthy eating pattern includes:

- Fruits
- Vegetables
- Protein
- Dairy
- Grains
- Oils

A healthy eating pattern limits:

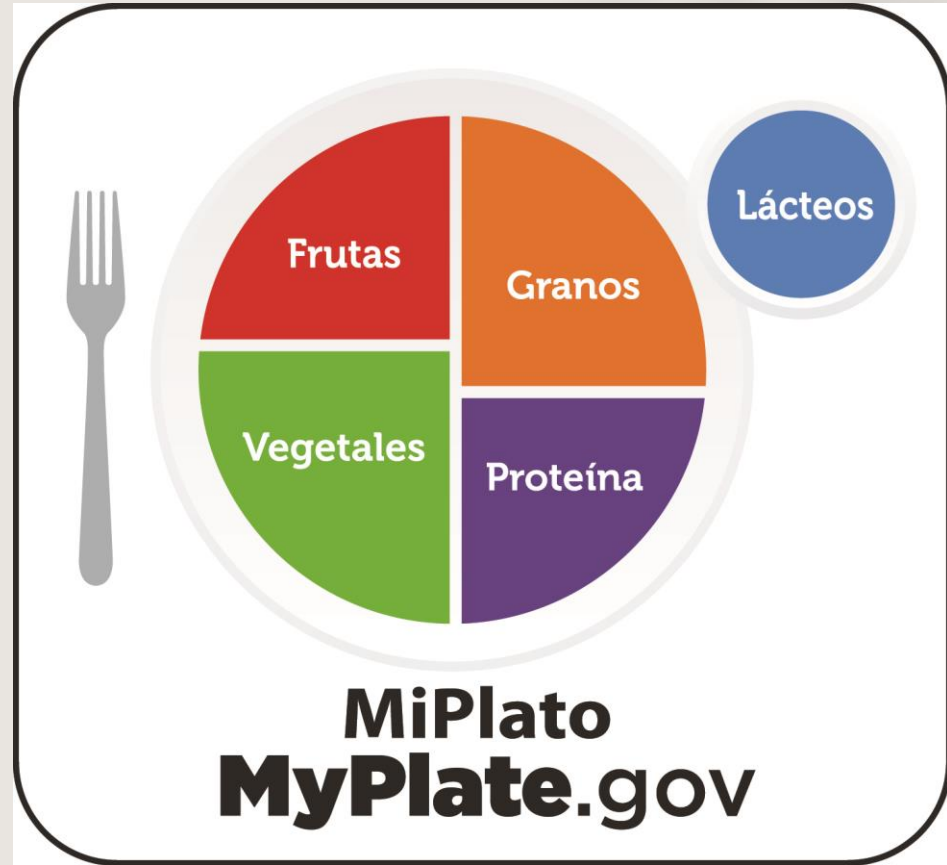
- Saturated fats and trans fats
- Added sugars
- Sodium

2 Focus on variety, nutrient density, and amount. To meet nutrient needs within calorie limits, choose a variety of nutrient-dense foods across and within all food groups in recommended amounts.

3 Limit calories from added sugars and saturated fats and reduce sodium intake. Consume an eating pattern low in added sugars, saturated fats, and sodium. Cut back on foods and beverages higher in these components to amounts that fit within healthy eating patterns.

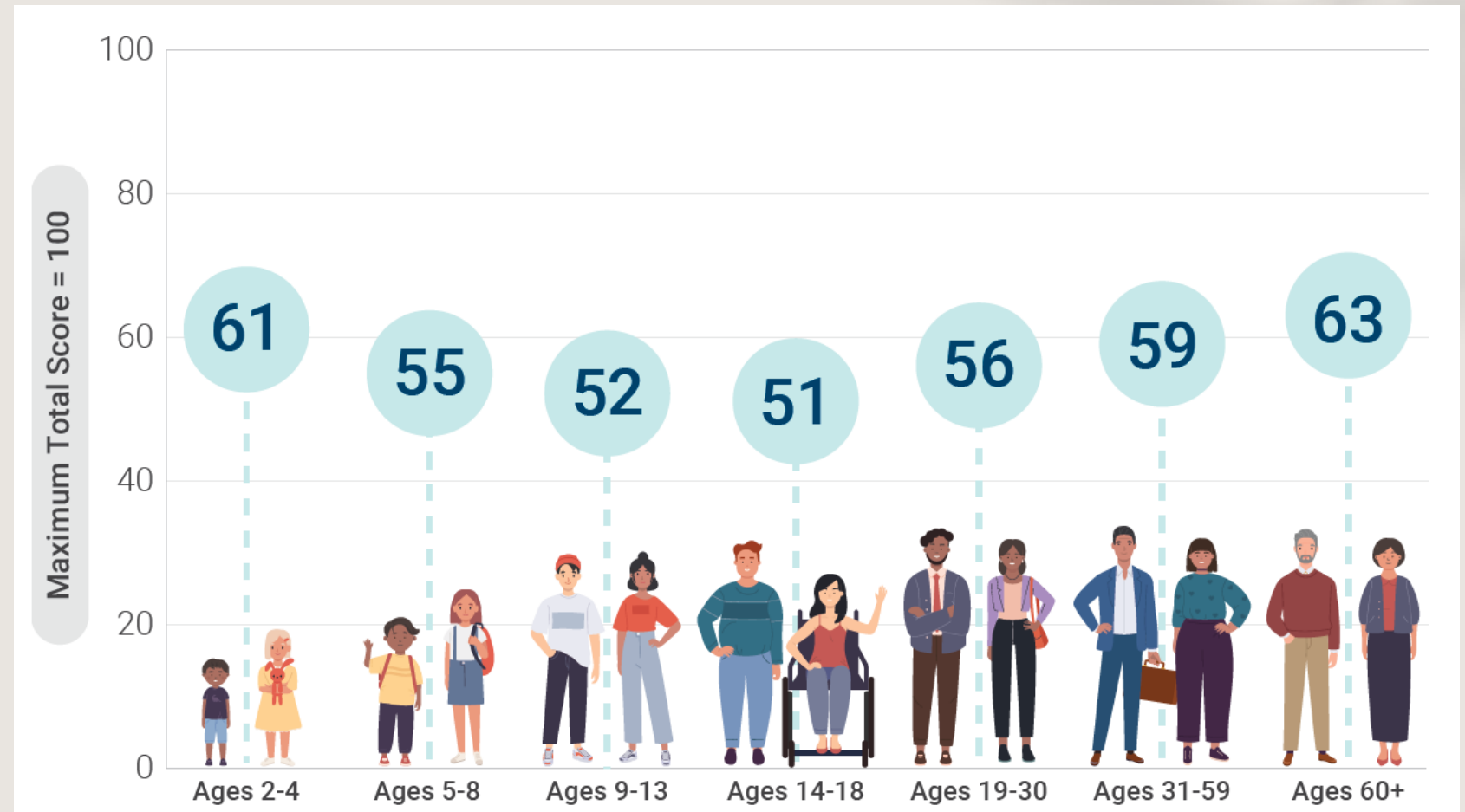
4 Shift to healthier food and beverage choices. Choose nutrient-dense foods and beverages across and within all food groups in place of less healthy choices. Consider cultural and personal preferences to make these shifts easier to accomplish and maintain.

5 Support healthy eating patterns for all. Everyone has a role in helping to create and support healthy eating patterns in multiple settings nationwide, from home to school to work to communities.



Adherence of the U.S. Population to the Dietary Guidelines Across Life Stages, as Measured by Average Total Healthy Eating Index-2015 Scores

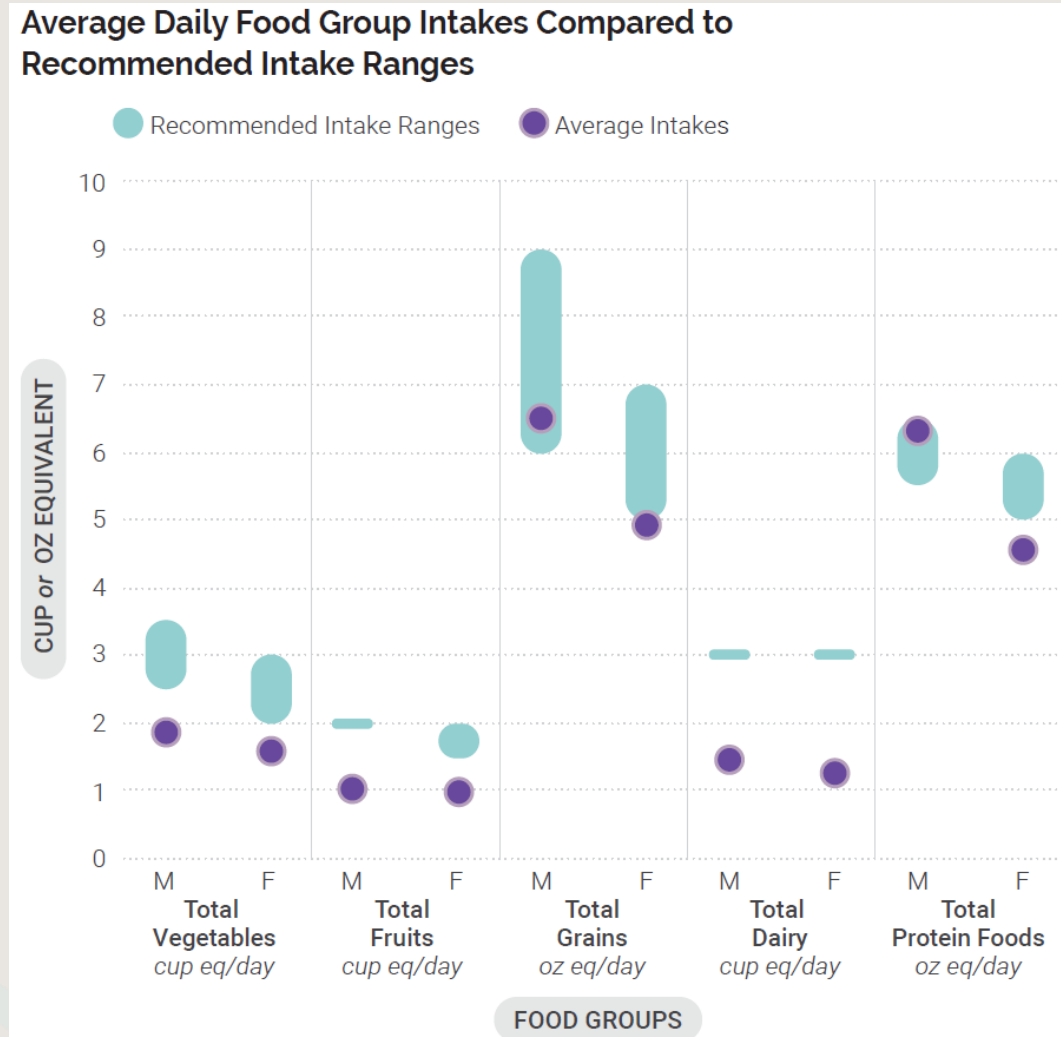
The Healthy Eating Index (HEI) measures how closely food and beverage choices align with the *Dietary Guidelines*. A higher total score indicates a higher quality diet.



Healthy U.S. Style Dietary Pattern: Older Adults Ages 60 and Older

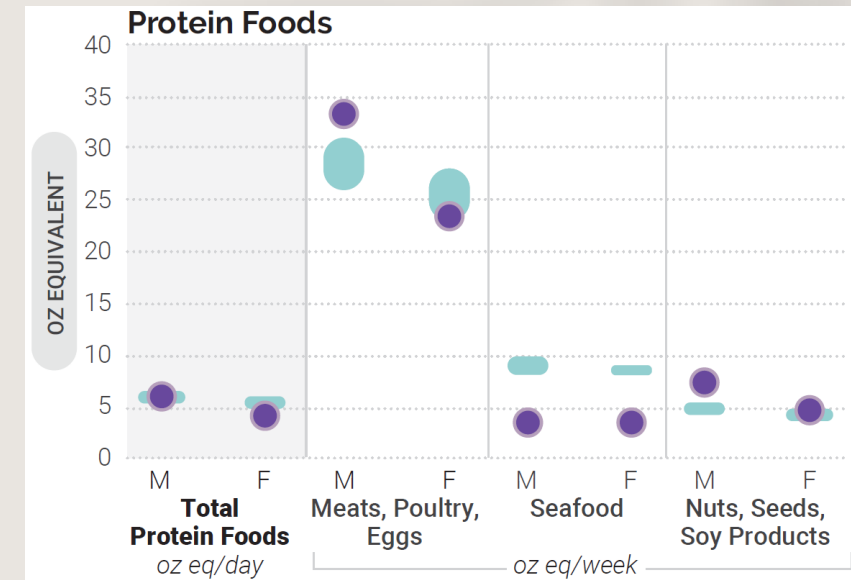
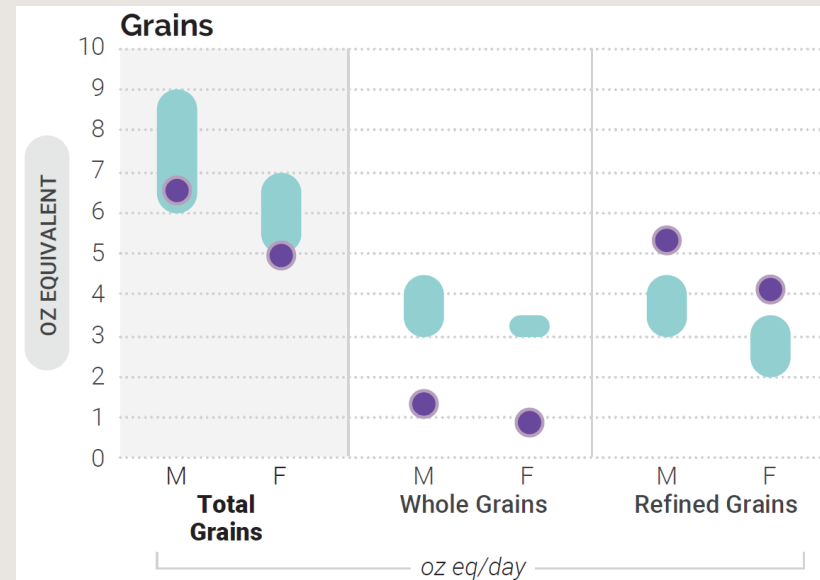
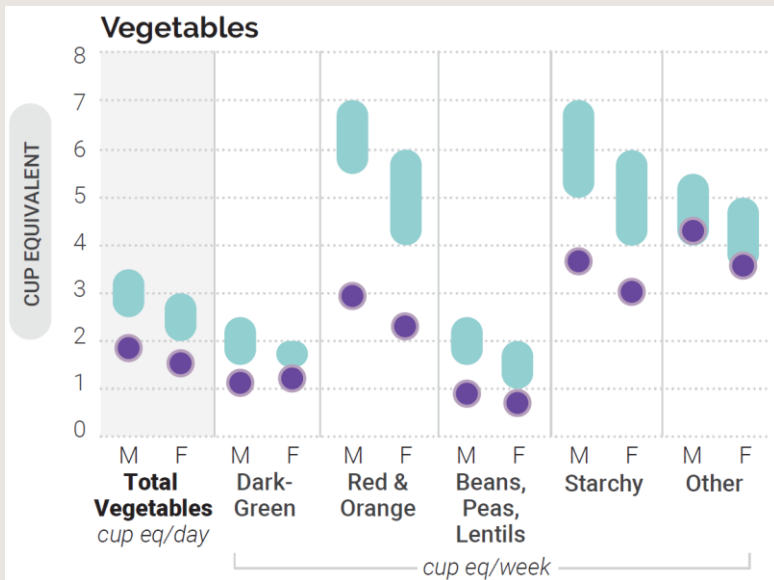
CALORIE LEVEL OF PATTERN ^a	1,600	1,800	2,000	2,200	2,400	2,600
FOOD GROUP OR SUBGROUP ^b	Daily Amount of Food From Each Group (Vegetable and protein foods subgroup amounts are per week.)					
Vegetables (cup eq/day)	2	2 ½	2 ½	3	3	3 ½
	Vegetable Subgroups in Weekly Amounts					
Dark-Green Vegetables (cup eq/wk)	1 ½	1 ½	1 ½	2	2	2 ½
Red & Orange Vegetables (cup eq/wk)	4	5 ½	5 ½	6	6	7
Beans, Peas, Lentils (cup eq/wk)	1	1 ½	1 ½	2	2	2 ½
Starchy Vegetables (cup eq/wk)	4	5	5	6	6	7
Other Vegetables (cup eq/wk)	3 ½	4	4	5	5	5 ½
Fruits (cup eq/day)	1 ½	1 ½	2	2	2	2
Grains (ounce eq/day)	5	6	6	7	8	9
Whole Grains (ounce eq/day)	3	3	3	3 ½	4	4 ½
Refined Grains (ounce eq/day)	2	3	3	3 ½	4	4 ½
Dairy (cup eq/day)	3	3	3	3	3	3
Protein Foods (ounce eq/day)	5	5	5 ½	6	6 ½	6 ½
	Protein Foods Subgroups in Weekly Amounts					
Meats, Poultry, Eggs (ounce eq/wk)	23	23	26	28	31	31
Seafood (ounce eq/wk)	8	8	9	9	10	10
Nuts, Seeds, Soy Products (ounce eq/wk)	4	4	5	5	5	5
Oils (grams/day)	22	24	27	29	31	34
Limit on Calories for Other Uses (kcal/day)^c	100	140	240	250	320	350
Limit on Calories for Other Uses (%/day)	7%	8%	12%	12%	13%	5%

Current Intakes: Ages 60 and Older



Average Intakes of Subgroups Compared to Recommended Intake Ranges: Ages 60 and Older

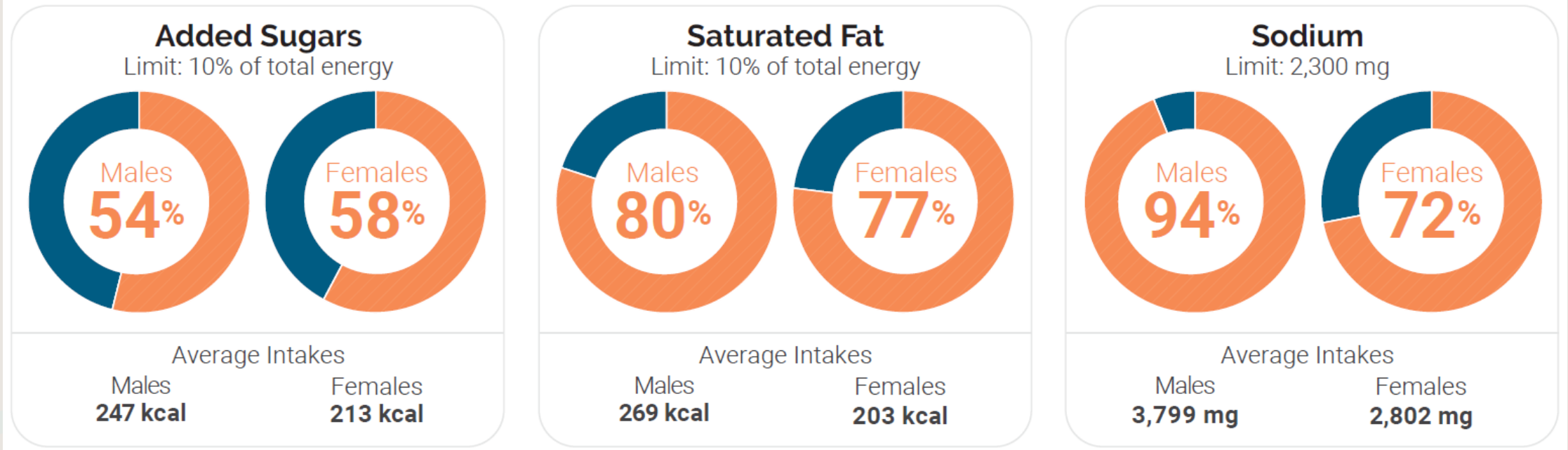
● Recommended Intake Ranges ● Average Intakes



Current Intakes: Ages 60 and Older Added Sugars, Saturated Fat & Sodium

Percent Exceeding Limits of Added Sugars, Saturated Fat, and Sodium

● Exceeding Limit ● Within Recommended Limit





DASH Diet

Dietary Approaches to Stop Hypertension

- Studies testing the DASH found that it lowers blood pressure, aids in weight loss, and reduces risk of Type 2 diabetes and heart disease

DASH Eating Plan

The Benefits: Lowers blood pressure & LDL “bad” cholesterol.



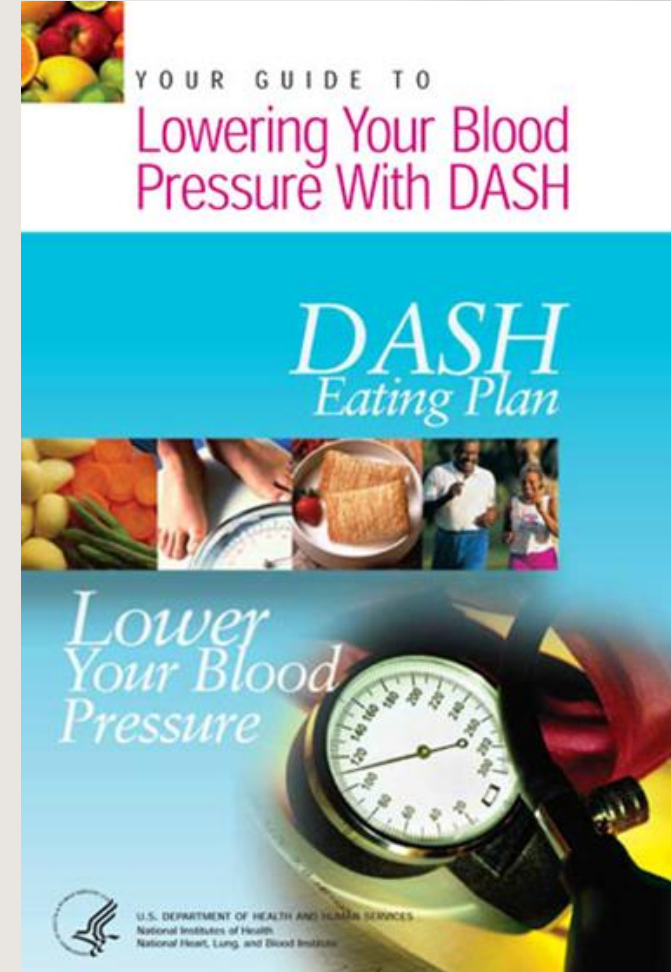
Eat This



Limit This

 Vegetables	 Fatty meats
 Fruits	
 Whole grains	 Full-fat dairy
 Fat-free or low-fat dairy	
 Fish	 Sugar sweetened beverages
 Poultry	
 Beans	 Sweets
 Nuts & seeds	
 Vegetable oils	 Sodium intake

www.nhlbi.nih.gov/DASH



NIH National Heart, Lung, and Blood Institute



Tracing the Origins of DASH

DASH Landmark *Clinical Trial, 1997*

- Tested the effects of specific types of food on blood pressure
- Results evident within two weeks

DASH-Sodium Study

- Tested the effects of varying levels of sodium: 3,450mg, 2,300mg and 1,150mg
- Results were especially evident in subjects who had hypertension to begin with

Omni-Heart Trial: A Variation on the DASH, 2003

- The Carbohydrate Diet
- The Protein Diet
- The Unsaturated fat Diet
- Results were a tie between the diets higher in protein and unsaturated fat

Mediterranean-style Eating Pattern

- Dietary pattern focuses on fresh produce, whole grains and healthy fats with less dairy and more fish than a traditional American diet
- A 2021 study found that people who follow the Mediterranean-style pattern had a significantly lower risk of sudden cardiac death



Origins of the Mediterranean Diet

- First publicized in 1975 by American Biologist, Ancel Keys and chemist wife, Margaret Keys
- 7 Country Study
 - Study of the link between the incidence of CVD and the eating habits of local populations of 14 groups of men between 40 and 59yrs in seven countries: U.S. Finland, Holland, Italy, Yugoslavia, Japan and Greece
 - Research Centers in the context of the Mediterranean UNESCO World Heritage Diet deal with analyzing and safeguarding this cultural element, a common heritage of the Mediterranean populations

Mediterranean Diet Pyramid





The MIND Diet

Mediterranean-DASH Diet Intervention for Neurodegenerative Delay

- Has shown to support healthy aging
- Combines a Mediterranean-style eating pattern with DASH
- Researchers have found that people who closely follow the MIND diet have better overall cognition compared to those with other eating style

Origins of the MIND Diet

- Research began in 1993
- Dr. Martha Clare Morris and colleagues at Rush University Medical Center and Harvard Chang School of Public Health followed a group of more than 1,000 older adults for up to 10 years from the Rush Memory and Aging Project (MAP)
- Published two papers introducing the MIND Diet



THE MIND DIET FOR HEALTHY BRAIN AGING

- The Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet is a hybrid of the Mediterranean and DASH (Dietary Approaches to Stop Hypertension) diets.
- MIND diet was developed as a result of a four-and-a-half-year study through the National Institute of Aging led by Dr. Martha Clare Morris, a Rush University nutritional epidemiologist.
- This study found that people who ate more of the MIND diet foods had less risk for Alzheimer's disease. People who followed the diet moderately reduced their risk for Alzheimer's disease by 35%, and those who followed it closely reduced their risk by 53%.
- MIND diet recommends 10 items to incorporate into your diet and 5 to limit.

10 THINGS TO INCORPORATE INTO YOUR DIET

- Green leafy vegetables (at least 6 servings a week)
- Other vegetables (at least 1 a day)
- Nuts (5 servings a week)
- Berries (2 or more servings a week)
- Beans (at least 3 servings a week)
- Whole grains (3 or more servings a day)
- Fish (at least 1 serving a week)
- Poultry (2 servings a week)
- Olive oil (use as in cooking and dressings)
- Wine, especially red (1 glass a day)

5 THINGS TO LIMIT IN YOUR DIET

- Red meat (less than 4 servings a week)
- Butter and margarine (less than 1 teaspoon daily)
- Cheese (less than 1 serving a week)
- Pastries and sweets (less than 5 servings a week)
- Fried or fast food (less than 1 serving a week)



Source: "MIND Diet Associated with Reduced Incidence of Alzheimer's Disease"
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4532650/>



Good News

- All dietary patterns can work
- Best not to become polarized
- Help clients make best choice for themselves and their families
- People don't want to eat healthy food, they want to know that the food they're eating is healthy
- Discussing dietary choices through a lens of opportunity to include foods, rather than only exclude food, can add a positive refreshing perspective to client conversations
- Let's be part of the solution!



How Can We Make a Difference?

Ways to Support Healthy Eating

Make a Difference in the Lives of Older Adults

- Start the conversation
- Encourage positive lifestyle modification
- Provide resources
- Make referrals to other healthcare professionals
- Help change organizational practices, approaches, and/or policies to support improved dietary patterns



Ways to Support Healthy Eating

- Make healthy eating feel doable!
- Teach new habits and skills, such as meal planning and cooking
- Host cooking demos and classes
- Encourage recipe make-overs:
 - Modify ingredients
 - Add wholesome food - "Nutrition by Addition" not elimination
- Host grocery store tours
- Offer webinars to support care-providers

“Cooking Makes Nutrition Come Alive”

When patients get inspired and learn a few techniques and the art of flavor building their confidence blossoms and they are better able to follow a healthy eating program!



Tips to Manage Protein

- Include a protein-rich food in every meal and snack
- Choose protein-rich food low in saturated fat
- Balance protein with produce - food pairings
- Prepare economical cuts of meat that are easy to chew





Power-up Meals with Protein

Beef & Barley Soup

Hearty soup with a lean beef and colorful vegetables for a generous dose of vitamins, minerals, antioxidants and fiber:

- ✓ Think lean and tender cuts of meat and ground meat
- ✓ Use variety of veggies
- ✓ Choose local and seasonal ingredients
- ✓ Use budget-friendly canned and frozen goods
- ✓ Choose a whole grain barley for the additional bran layer for extra antioxidants, minerals and fiber
- ✓ Fire-roasted tomatoes with a extra boost of vitamin A and beta-carotene



Roasted Carrots with Carrot-Top Sauce and Chipotle Yogurt

Turn boiled carrots into more nutrient-rich carrots:

- ✓ Roast carrots with monounsaturated oil and delicious warm spice like cumin to enhance flavor
- ✓ Drizzle with a yogurt sauce to enhance the protein, calcium and vitamin D
- ✓ Kick up the flavor with chipotle peppers high in antioxidants
- ✓ A splash of lime and toasted nuts adds to the flavor and texture profile



Farmer's Market Frittata

Delicious nutrient-rich breakfast dish pair eggs with variety of veggies for a quick and easy way to use up leftovers:

- ✓ Protein-rich eggs and cheese blended and baked with nutrient-rich colorful veggies for a balanced meal any time of the day
- ✓ Add some grains like quinoa or buckwheat or serve with wholegrain bread to round out the food groups
- ✓ Add lean ground beef for additional protein source



Asian Beef Stir-Fry

Pair protein with vegetables and whole grains:

- ✓ Stir-fry lean cuts of beef with peanut oil and lots of colorful veggies high in vitamins, minerals and antioxidants
- ✓ Stretch smaller portions of meat and also easier to chew when cut in strips
- ✓ Served with wholegrain rice to amp up dietary fiber



Warm Mini Apple Strudel Filo Bites

Delicious dessert alternative to a heavy calorie bomb:

- ✓ Fresh apple, flavored with sweet hint of cinnamon, and high in potassium and vitamin C
- ✓ Served with vanilla-flavored Greek yogurt in lieu of high saturated fat ice cream
- ✓ Right size portion following a satisfying meal



High-Protein Snacks

Chia seed pudding

Edamame

String cheese and nuts

Hard-boiled eggs

Cottage cheese and fruit

Nut butters on toast with banana

Greek yogurt parfait

Apple slices wrapped in turkey

Three Bean Salad

Trail Mix

Hummus with vegetables

Egg "Muffins"

Protein Smoothie

Roasted Chickpeas

Tuna Salad

Beef Jerky



Help Shift Attitudes Towards “Healthy”

- Flavor first: seasonal, fresh, bold, regional, ethnic cuisine
- Small plates, easy snacks
- Use messages that inspire: rephrase “healthy” with signature ingredients and authentic cooking techniques
- Provide interactive experiences - tasting, hands-on at senior centers, YMCA, in-home opportunities

Be Ready to Address Real Barriers

- Stretched food budgets
- Inability to prepare meals
- Healthy foods aren't convenient or available
- Family concerns
- Confusion about what is healthy
- Loss of appetite
- Difficulty chewing, swallowing or eating independently
- Sensitivity to smells
- Depression or loneliness

Be a Part of the Solution

- Educate clients on how to prepare food
- Conduct culinary demos and classes
- Offer grocery shopping tours
- Encourage clients to cook more at home
- Develop flexible meal planning guides
- Encourage attendance at Senior Centers

Offer Resources

Federal Programs

SNAP	Supplemental Nutrition Assistance Program
FDPIR	Food Distribution Program on Indian Reservations
SNAP-Ed	SNAP Education
EFNET	Expanded Food and Nutrition Education Program





“A healthy lifestyle not only changes your body: it changes your mind, your attitude and your mood!”

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Resources

- www.myplate.gov
- www.nia.nih.gov
- www.fns.usda.gov/cnpp
- www.nal.usda.gov/fnic
- www.usda.gov
- <https://defeatmalnutrition.today/consumer-resources/>
- [https://acl.gov/senior-nutrition\]](https://acl.gov/senior-nutrition)
- www.Mealsonwheelsamerica.com
- <https://www.momsmeals.com>
- <https://foodandfriends.org>
- <https://www.nia.nih.gov/health/exercise-and-physical-activity>
- <https://tools.silversneakers.com/>
- <https://oldwayspt.org>
- www.eatright.org
- www.beefitswhatsfordinner.com