

Exclusive Webinar Presentation

An In-Depth Look Into the Dietary Guidelines

LearningLibrary
TODAY'S DIETITIAN

Presented by **Toby Amidor, MS, RD, CDN**

Earn 1 CPEU

Toby Amidor, MS, RD, CDN



Disclosures:

- ❖ Ambassador to National Dairy Counsel
- ❖ Consultant to Beef Expert Bureau
- ❖ Member of Dannon Yogurt Board

Learning Objectives

1. Understand the process of how the Dietary Guidelines are created.
2. Explain why modifications were made to the Dietary Guidelines.
3. List three noteworthy changes to the Dietary Guidelines.
4. Communicate healthy eating messages to their clients that are consistent with the Dietary Guidelines.

Part 1: The Backstory

The Reality

- About half of all Americans adults have one or more preventable chronic disease
 - 117 million individuals
- About 2/3 of US adults are overweight/obese
 - ~155 million individuals
- These conditions have been highly prevalent for >2 decades
- Poor dietary patterns, overconsumption of kcals, and physical inactivity directly contribute to these disorders

The Reality

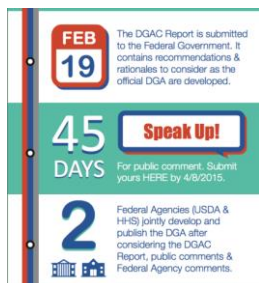
- Individual nutrition & physical activity behaviors are strongly influenced by:
 - Individuals
 - Social surrounding
 - Organizational systems
 - Environmental systems
- Positive changes in all of the above could ultimately improve health outcomes

History of the Dietary Guidelines



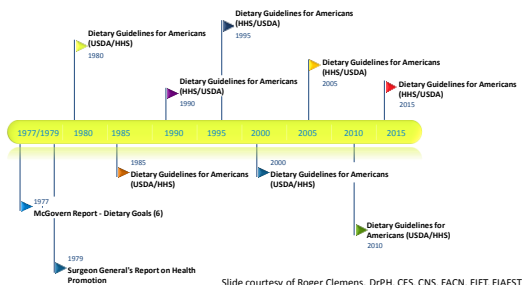
- Published jointly: US Dept of Health & Human Services + USDA
- Intended for Americans ≥ 2 years
- The Dietary Guidelines Advisory Committee (DGAC):
 - Nationally recognized health & nutrition experts
 - Review, updated, and published every 5 years
- Scientific Report of the 2015 DGAC:
 - Written as the basis for developing the *Dietary Guidelines for Americans* policy

How the DGA Are Established



- Written comments opened until 5/8/15
- HHS and USDA hosted a public oral comment meeting on 3/24/15
- Finally, the long awaited release of the guidelines

Dietary Guidance Milestones



History of Dietary Messages

Goals:

1. Energy balance to avoid overweight
2. Increase consumption of complex CHO and "naturally occurring sugars"
3. Reduce consumption of refined and processed sugars, total fat, sat fat, cholesterol, and sodium
4. Increase consumption of fruits, vegetables, & whole grains
5. Decrease consumption of
 - Refined and processed sugars
 - Foods high in total fat and animal fat
 - Eggs, butterfat and high-cholesterol foods
 - Salt and foods high in salt
 - Choose low-fat and non-fat dairy



Senator George McGovern (1977)
Chairman, Senate Nutrition Committee



Senators George McGovern and Robert Dole (2008)
World Food Prize Laureates

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Recommendations Over 30 Years

Year	Weight	Sugar	Fat
1980	Maintain ideal weight	Avoid too much	Avoid too much
1985	Maintain desirable weight	Avoid too much	Avoid too much
1990	Maintain healthy weight	Use only in moderation	Chose diet low in fat
1995	Improve your weight	Choose diet moderate in sugars	Choose diet low in fat
2000	Aim for a healthy weight	Choose foods to moderate sugar intake	Choose diet low in fat
2005	Manage body weight	No guidance	Choose fats wisely
2010	Balanced calories to manage weight	Reduce added sugars	Consume <10% cals from sat fat
2015	Achieve and/or maintain a healthy body weight	Limit calories from added sugar	Limit calories from saturated fats

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Why Are the Guidelines Important?

Dietary Guidelines address significant nutrition-related health issues facing the US population:

- Overweight, obesity and other diet-related chronic disease
 - CVD, Type 2 DM, cancer
- Less than optimal dietary patterns in the US
 - Contribute to poor pop health and high chronic disease risk
- Food insecurity
 - Availability of nutritionally adequate foods limited or uncertain
 - >49 million in US, including 9 million children

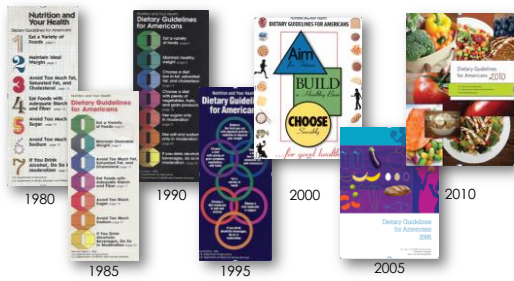


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Why Are the Guidelines Important?

- Basis of federal nutrition policy, education, outreach, and food assistance programs
 - Used by consumers, industry, nutrition educators, and health professionals
- They influence the DG other countries will have
- All federal dietary guidance for the public is required to be consistent with the DG
 - School policy + school lunch program
 - SNAP
 - WIC

Dietary Guidelines for Americans: The Core of Nutrition Policy



Slide courtesy of Roger Clemens, DPH, CFS, CNS, FACH, FIFT, FIAFST

Part 2. Proposed Changes

US Trends in Nutrient Intake & Health

Data from:

- **What We Eat in America** survey
 - Part of National Health and Nutrition Examination Survey
- Examination of health conditions that may have nutritional origins



Shortfall Food Groups



Under-consumed food groups:

- **Vegetables:** 90% of the US pop does not meet daily vegetable intake recommendations
- **Fruit:** Only 15% of US pop meets the daily fruit intake recommendation
- **Whole grains:** Across all ages and both sexes, nearly 100% of the pop consumes amounts below the recommended intake levels
- **Dairy:** Age-related decline in intake from adolescents with more than 80% of the entire US pop not meeting the daily recommended dairy intake

Results in Nutrient Shortfalls



- Nutrients under-consumed relative to Estimated Average Requirements or Adequate Intake levels per IOM
 - Vitamins A, D, E, C, folate, calcium, magnesium, fiber, potassium
- Females (adolescent + pre-menopausal): iron
- Calcium, Vitamin D, fiber, potassium:
 - 'nutrients of public health concern'
 - Underconsumption linked to adverse health effects

Recommendations for Shortfalls

- Composition of many **food categories** can be improved to increase intake of vegetables, whole grains, and under consumed nutrients:
 - i.e. **burgers, sandwiches, desserts, beverages**
- Take advantage of more opportunities to enrich meal choices with important **food groups** in all settings
 - **Home meals, restaurants, schools**



Overconsumed Nutrients

- Nutrients overconsumed relative to Tolerable Upper Intake Levels per IOM or maximum standards:
 - **Saturated fat**
 - **Sodium**
 - **Refined grains**
 - **Added sugars**



- 90 % of males and females in all age groups exceed the recommended daily limits of solid fats and added sugars
- Nearly 100% of boys and girls ages 1-3 and 4-8 exceed recommended limit for solid fats and added sugars

Does Where You Purchase Matter?

- The US purchases food for a variety of locations
 - **Supermarket**
 - **Convenience stores**
 - **Schools**
 - **Workplace**
- DGAC report determined no matter where food is obtained, the diet quality of the US pop does not meet the recommendations (the same over and under consumed nutrients and food groups)

Total Plate vs. Single Nutrient

- Individual components of food, like saturated fat or sugar, should not be demonized
- Look at the entire diet as a whole
- Ask client:
 - Are portions appropriate
 - Are there enough vegetables?
 - Are you skipping meals?



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Cholesterol

"Available evidence shows **no appreciable relationship** between consumption of **dietary cholesterol** and **serum cholesterol**, consistent with the conclusions of the AHA/ACC report"

- Recommended 2015 guidelines not include previous recommendation to limit intake <300mg/day
- Cholesterol is not a nutrient of concern for overconsumption



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Sustainability

- DGAC report suggests a diets higher in plant-based foods and lower in animal-based foods are more health promoting and associated with less environmental impact than the current US diets
- Suggested lower environmental impact diets:
 - Healthy U.S. style-pattern
 - DASH
 - Mediterranean-style pattern
 - Vegetarian pattern
- Due to its higher intake of animal-based foods, the average US diet has a larger environmental impact (i.e. increasing greenhouse gases, land/water/energy use) compared to suggested diets
- Note: no food group needs to be eliminated completely to improve sustainability



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Sustainability: Fish

- Seafood important part of several recommended dietary patterns
- Seafood industry rapidly expanding
- Safety concern of farm-raised vs wild-caught seafood – but **both** are needed in order to support meeting seafood recommendations



Part 3: 2015 Dietary Guidelines for Americans

5 Overarching Guidelines

- 1) Follow a healthy eating *pattern* across the lifespan
- 2) Focus on variety, nutrient-dense food, and amount
- 3) Limit calories from added sugars and saturated fats, and reduce sodium
- 4) Shift to healthier food and beverage choices
- 5) Support healthy eating pattern for all

Components of Healthy Eating Patterns

A healthy eating pattern includes:

- A variety of vegetables from all the subgroups
 - Dark green, red and orange, legumes, starchy, and other
- Fruit, especially whole fruit
- Grains, at least half which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese and/or fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes and nuts, seeds, and soy proteins
- Oils



Components of Healthy Eating Patterns

A healthy eating plan limits:

- **Saturated Fats:** Consume less than 10% calories/day
- **Added Sugars:** Consume less than 10% of calories/day
- **Sodium:** Consume less than 2,300 mg/day
- **Alcohol:** if consumed, then in moderation



Table A9-1. Alcoholic Drink Equivalents of Select Beverages

Drink Description	Drink Equivalents*
Beer, beer cooler, and malt beverages	
12 fl oz of 4.2% alcohol ¹	0.6
12 fl oz of 5% alcohol (reference beverage)	1
16 fl oz of 5% alcohol	1.3
12 fl oz of 7% alcohol	1.4
12 fl oz of 9% alcohol	1.8
Wine	
5 fl oz of 12% alcohol (reference beverage)	1
9 fl oz of 12% alcohol	1.8
5 fl oz of 15% alcohol	1.3
5 fl oz of 17% alcohol	1.4
Distilled spirits	
1.5 fl oz of 80 proof distilled spirits (40% alcohol) (reference beverage)	1
Mixed drink with more than 1.5 fl oz 80 proof distilled spirits (40% alcohol)	> 1 [†]

Drink Equivalents
Appendix 9 DGA

Alcohol Consumption

Drink equivalents = (ABV%*fl oz consumed)/0.6 fl oz

Example: Light Beer = 4.2% ABV

Drink equivalents = (0.042*12 fl oz)/0.6 fl oz

Drink equivalents = 0.84

Healthy Physical Activity Pattern

In addition to consuming a healthy eating pattern, physical activity guidelines should be met.

Age	Recommendations
6-17 years	<ul style="list-style-type: none"> 60 minutes or more At least 3 days/week Include aerobic, muscle strengthening, bone strengthening Enjoyable and offer variety
18-64 years	<ul style="list-style-type: none"> Avoid inactivity. For substantial health benefits, at least 150 minutes/week of moderate-intensity, or 75 minutes of vigorous-intensity aerobic physical activity/week For additional and more extensive health benefits, 300 minutes/week of moderate-intensity, or 150 minutes/week of vigorous-intensity aerobic physical activity Include muscle-strengthening activities on 2+ days/week
65+ years	<ul style="list-style-type: none"> Follow adult patterns keeping safety in mind

Federal Physical Activity Resources

Program/Initiative	Lead Office	Website
Physical Activity Guidelines for Americans	Office of Disease Prevention & Health Promotion (ODPHP)	http://health.gov/paguidelines
Healthfinder.gov (consumer)	ODPHP	www.healthfinder.gov
Lets Move!	Office of the First Lady	www.letsmove.gov
I Can Do It, You Can Do It	President's Council on Fitness, Sports & Nutrition (PCFSN)	www.fitness.gov
The President's Challenge	PCFSN	www.presidentschallenge.org
Physical Activity Guidelines for Americans Youth Toolkit	CDC	www.cdc.gov/healthyschools/physicalactivity/guidelines.htm
Go4Life (focused on older adults)	NIH National Institute on Aging	https://go4life.nia.nih.gov

Healthy Eating Pattern: US-Style

- Based on food guides USDA developed over past 30 years
- No change since 2010

Food Group	Servings (2000 calories)
Vegetables (c-eq/day) <ul style="list-style-type: none"> • Dark-green vegetables (c-eq/wk) • Red & orange vegetables (c-eq/wk) • Legumes (c-eq/wk) • Starchy Vegetables (c-eq/wk) • Other vegetables (c-eq/wk) 	2½ <ul style="list-style-type: none"> • 1½ • 5½ • 1½ • 5 • 4
Fruits (c-eq/day)	2
Grains (oz-eq/day) <ul style="list-style-type: none"> • Whole grains (oz-eq/day) • Refined grains (oz-eq/day) 	6 <ul style="list-style-type: none"> • 3 • 3

Healthy Eating Pattern: US-Style

Food Group	Servings
Dairy (c-eq/day)	3
Protein Foods (oz-eq/day) <ul style="list-style-type: none"> • Seafood (oz-eq/wk) • Meats, poultry, eggs (oz-eq/wk) • Nuts, seeds, soy products (oz-eq/wk) 	5½ <ul style="list-style-type: none"> • 8 • 26 • 5
Oils (g/day)	27
Limit on Calories for Other Uses (% of calories)	14

Cup and Ounce Equivalents

Food	Amount
<ul style="list-style-type: none"> • ½ cup green beans • 1 cup spinach 	½ cup-eq vegetables
<ul style="list-style-type: none"> • ½ cup strawberries • ¼ cup raisins 	½ cup-eq fruit
<ul style="list-style-type: none"> • ¾ cup 100% OJ 	¾ cup-eq fruit
<ul style="list-style-type: none"> • 1 slice bread • ½ cup cooked brown rice 	1 oz-eq grains
<ul style="list-style-type: none"> • 6-oz fat-free yogurt • 1½ oz cheddar cheese 	1 cup-eq dairy
<ul style="list-style-type: none"> • 2 large eggs • 2T peanut butter • 1 oz almonds 	2 oz-eq protein

Healthy Eating Pattern: US-Style

Guidelines specify:

- Fresh, frozen, canned count towards **fruit and vegetables**.
- Dried and 100% juice count towards **fruit and vegetables**.
- Most **dairy** choices should be fat-free or low-fat.
- **Meats and poultry** should be lean or low-fat and nuts unsalted.
- Legumes count as part of **protein and vegetables**, but should be counted in one group only.



About Seafood

- Recommendation: 8 oz/week
- Average 250 mg/day EPA and DHA associated with lower risk of CVD
- Seafood higher in EPA/DHA and lower in mercury recommended
 - Salmon
 - Anchovies
 - Herring
 - Sardines
 - Pacific oysters
 - Trout
 - Atlantic/Pacific mackerel



About Meat

- Protein intake is marginal with many groups
 - As many as 45% of Americans >1 year fail to meet protein recommendations
- A healthy dietary pattern consists of **lean meat**
- There is **confusion** surrounding red meat



About Meat

The Committee reviewed evidence

- Variability of the **food grouping**, especially in the meat group



- For example, studies defined "total meat" as:
 - Study A: Meat, sausage, fish, and eggs
 - Study B: Red meat, processed meat, and poultry
 - Study C: Other combinations
- Lean meats were not consistently defined or handled similarly between studies, so could not be parsed out

About Meat

NHANES data reveals:

- 10% or less of saturated fat and total fat in the American diet comes from beef
- 5% of calories in the American diet come from beef
- Despite higher intakes of meat over the past several decades, reports indicate that the proportion in total and saturated fat from meat, poultry and fish has slowly declined

Reference:
<http://www.usda.gov/documents/usda-factbook-2001-2002.pdf>



Defining "Lean Meat"

- ❑ Over 66% of beef cuts meet the guidelines for "lean"
- ❑ Thanks to increased trimming practices, the external fat in retail cuts has decreased by 80% in the past 20 yrs
- ❑ Lean defined by USDA and FDA for food label use:
 - ❑ Less than 10% fat by weight, or less than 10g of fat/100 g

Examples:

- ✓ 95% lean ground beef, cooked
- ✓ broiled beef steak, lean only eaten
- ✓ baked pork chop, lean only eaten
- ✓ roasted chicken breast or leg, no skin eaten
- ✓ smoked/cured ham, lean only eaten

About Dietary Fats



- ❑ Oils part of healthy eating pattern due to high vitamin E and fatty acids
- ❑ Oils should replace solid fats
- ❑ Coconut, palm kernel, and palm oils are called oils because they come from plants
 - ❑ Solid or semi-solid at room temp due to high content of SCFA
 - ❑ Considered solid fat for nutritional purposes

Healthy Eating Pattern: Mediterranean-Style Eating Pattern

- ❑ Adopted from the Healthy US-Style Pattern
- ❑ Groups modified to more closely reflect eating patterns associated with positive health outcomes in the Mediterranean
- ❑ More fruits and seafood, less dairy compared with US-Style Pattern
 - ❑ **Less calcium and vitamin D** due to less dairy



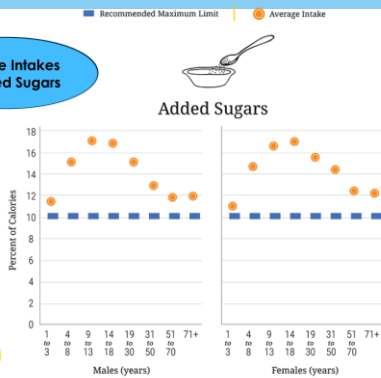
Hidden Components in Eating Patterns



Added Sugars

- WHO: Maximum 10% calories/day of added sugar
- Evidence suggests eating patterns with lower amounts of added sugar are associated with:
 - Reduced risk of CVD
 - Reduced risk of obesity
 - Reduced risk of Type-2 diabetes
 - Reduced risk of some forms of cancer

Average Intakes of Added Sugars



Added Sugars



- Two main sources of added sugar in US:
 - Sugar-sweetened beverages
 - Snacks and sweets
- Nutrient-dense foods where sugar naturally present to enhance palatability:
 - Fruit (i.e. cranberries)
 - Vegetables (i.e. rhubarb)
- Can also be added to whole grain breakfast cereals or fat-free yogurt as long as meets criteria for added sugar

Proposed new Nutrition Facts Panel

Current

Nutrition Facts
Serving Size: 2.0 cup (50g)
Servings Per Container: About 8

Amount Per Serving	Calories from Fat 45
Calories 230	
Total Fat 1g	2%
Saturated Fat 1g	2%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 150mg	7%
Total Carbohydrate 37g	12%
Dietary Fiber 4g	8%
Sugars 1g	
Protein 1g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	40%

*Percent Daily Values are based on a diet of other people's secrets. Your daily values may be higher or lower depending on your calorie needs.

Calories	2,000	2,300
Total Fat	65g	78g
Saturated Fat	20g	25g
Cholesterol	300mg	350mg
Sodium	2,400mg	2,800mg
Total Carbohydrate	300g	350g
Dietary Fiber	40g	50g

Revised

Caffeine

- Previously unexamined area
- Stimulant
- Evidence shows consumption of 3-5 cups of coffee/day (or up to 400mg/day caffeine) not associated with increased long-term health risks
- Consistent evidence indicates coffee consumption associated with reduced risk of diabetes (type 2) and CVD
- Moderate evidence for protective association between coffee intake and Parkinson's disease



Caffeine

- If caffeine added to a food, it must be listed under ingredient list
- Most caffeine comes from coffee, tea, and soda
- Limit consumption of high-caffeine energy drinks
- Be wary of:
 - Added calories (milk, cream, sugar, dairy substitutes)
 - Safety of high caffeine (>400mg/day) intake
 - Energy drinks + alcoholic beverage pairings

Low/ No Calorie Sweeteners

- Replacing added sugars with high-intensity sweeteners may reduce calorie intake in the short-term, yet questions remain about their effectiveness as a long-term weight management strategy.
- US approved high-intensity sweeteners:
 - Saccharin
 - Aspartame
 - Acesulfame potassium (Ace-K)
 - Sucralose
- Based on the available scientific evidence, these high-intensity sweeteners have been determined to be safe for the general population.



Part 4: Recommendations into Actions

How Should We Use the Guidelines?

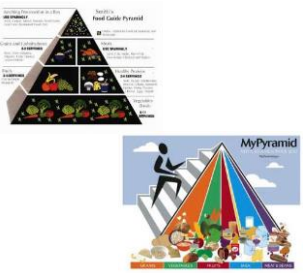
- Gov't use DG to develop research-based consumer messages for use by public and health educators
- The key to success in the DG lies in the ability to communicate them effectively to consumers
- Consumers want
 - Specific actions they can relate to, individualize and incorporate into their lifestyle
 - Positive information to keep them motivated to achieve a healthy diet and lifestyle

History of MyPlate



- 1940s: A Guide to Good Eating (Basic Seven)
- 1956-1970: Food for Fitness, A Basic Food Guide (Basic Four)
- 1979: Hassle Free Daily Food Guide
- 1984: Food Wheel- A Pattern for Daily Food Choices

History of MyPlate



- 1992: Food Guide Pyramid
- 2005: MyPyramid Food Guidance System
- 2011: MyPlate

My Plate

- A **comprehensive** nutrition communications initiative
- Meant to serve as a **simple guide** to help consumers choose healthful foods.

Provides visual reminders to help consumers make nutritious food choices and form healthful eating habits consistent with Dietary Guidelines

- Latest update in response to a call to action from the **2010 White House Child Obesity Task Force** to provide simple, useful advice that consumers can easily understand.



ChooseMyPlate.gov



SuperTracker:

interactive, online dietary assessment and planning tool based on age, gender and physical activity level

- Provides user-friendly tips and strategies for making smart choices from every food group
- Available in a variety of languages

Multi-Component Approach

- The Individual and family Level
- Communities
 - Food environment
 - Social environment
 - Cultural environment
 - Economics
- Industry and Government
 - Food access in the community
 - Food access at school/worksite/child care
 - Policy



Individual and Family Level

Behavior Change Strategies

- Reduce screen time
- Reduce frequency of eating out fast food
- Increase frequency of family shared meals
- Self-monitoring of body weight
- Effective food label reading to target healthy food choices



Empower Folks To Make Healthy Shifts

From....	To....
High calorie snacks	Nutrient-dense snacks
Fruit products with added sugar	Fruit
Refined grains	Whole grains
Snacks with added sugars	Unsalted snacks
Solid fats	Oils
Beverages with added sugar	No-added sugar beverages



Motivating Parents to Make Positive Diet and Lifestyle Changes

Dietary Guideline Alliance research found these messages testes best among American families:

- Know your number
- Fun stuff counts as exercise
- Take charge of your weight
- Small steps = big changes
- Base your plate on nutrient-rich foods that offer beneficial nutrients and fewer calories
- You are an important role model for your children



Family Meals



- Promising behavior change strategies to favorably affect a range of health-related outcomes, enhance the effectiveness of interventions
 - Limited studies

Suggest: "frequent consumption of family meals was associated with improved dietary intake, specifically an increase in fruits and/or vegetables, and calcium-rich or milk-based foods"

Communities



- Food environment
 - Facilitate access to healthy food
- Social environment
 - Address nutrition-related health problems (i.e. obesity/overweight, CVD, type 2 DM)
- Cultural environment
 - Immigrants at risk of losing healthier dietary patterns characteristic of their cultural background
- Economics
 - Facilitate access to affordable food

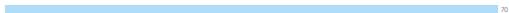
Industry and Government

- Create/modify environmental policies to improve availability and provision of healthy foods and beverages
- Increase opportunity for physical activity
- Increase parent engagement (in child care and school settings)
- Educational approaches
 - i.e. school nutrition curriculum





Part 4: What's Next?



What's Next?



- The 5 year process starts soon for the 2020 DGA

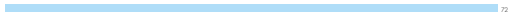


Recommendations for 0-24 months

Beginning in 2020, the *Dietary Guidelines* will address Americans of all ages, starting from birth.

- Current recommendations for this age group has been extrapolated from adult recommendations
- Very few studies
- May not be enough time to get good studies in the next few years.
- Interesting stuff!





Questions

Connect with me:

- [Website: TobyAmidorNutrition.com](http://TobyAmidorNutrition.com)
- [Facebook: Toby Amidor Nutrition](#)
- [Twitter: @tobyamidor](#)
- [Instagram: @tobyamidor](#)



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Credit Claiming Instructions

You must complete a brief evaluation of the program in order to download your certificate. The evaluation survey will be available on www.CE.TodaysDietitian.com for 1 year following the live presentation.

RDs should list CPE activity type 175 in their professional development portfolio.

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