



March 30, 2018

The American Society for Nutrition (ASN) appreciates the opportunity to comment on the proposed topics and supporting scientific questions that will be considered during the development of the upcoming 2020-2025 edition of the Dietary Guidelines for Americans (DGAs), and encourages that the scientific evidence base be the final determinant to guide which topics require updates. ASN is a scientific, professional society with more than 7,000 members, nutrition scientists, and researchers around the world who conduct nutrition research to help all individuals live healthier lives.

ASN commends the USDA and HHS for adding additional steps to the development process for the DGAs to increase stakeholder involvement and transparency. We appreciate the life stage approach that has been proposed for the topics included within this edition of the DGAs, especially given the important addition of dietary guidance for pregnant women, as well as infants and children birth to 24 months of age, and older adults. ASN supports each of the life stages that have been proposed to be addressed.

We also appreciate the continued focus on dietary patterns and support a total diet approach, which includes intake of food groups, nutrients, and bioactive dietary components, given the complex interactions of foods and beverages consumed and their impact on health. ASN also notes that dietary guidance must support the various cultural, social, and economic factors that affect individual dietary patterns and eating behaviors and habits, such as snacking and dietary supplement intake. Dietary guidance is most effective when it is practical and actionable for most Americans. The need to balance nutrients, foods, and behaviors to achieve a healthful eating pattern should be highlighted, and a continued focus on calorie reduction and chronic disease and obesity prevention should be emphasized.

In addition, the DGAs have an opportunity to go beyond advising Americans solely on what to eat and can focus on the knowledge, skills, and attitudes that individuals need to change their behavior to improve eating habits and overall nutrition. The DGAs should also acknowledge the importance of environments which are supportive of healthy behavior change and that participation from an array of stakeholders, including academia, government, and industry is needed to achieve these goals. Recognizing the complexity of including the birth to 24 months life stage in this edition of the DGAs, moving forward, future editions of the DGAs should also include a review of the evidence regarding the influence of environment on diet using experts appropriate for this topic.

*ASN Comments and Additions to Select, Proposed Topics and Questions are in **Red** Below*

Infants and toddlers from birth to 24 months (healthy, full-term infants)

Topic

Question(s)

Recommended duration of exclusive human milk

What is the relationship between the duration of

and infant formula feeding

exclusive human milk and infant formula consumption and 1) growth, size, and body composition; 2) food allergies and other atopic allergic diseases; and 3) long-term health outcomes?

Frequency and volume of human milk and infant formula feeding

What is the relationship between the frequency and volume of human milk and infant formula consumption and 1) micronutrient status; and 2) growth, size, and body composition?

Are relationships between human milk and micronutrient status and growth, size, and body composition impacted by the method of delivery/storage of human milk, including 1) breast milk fed at the breast; 2) breast milk expressed and fed immediately; and 3) breast milk expressed and stored refrigerated or frozen?

Multiple issues must be considered including feeding behavior of the infant, food safety (in terms of possible contamination and storage), and bioavailability of nutrients, growth factors, and immunologically active components.

Dietary supplements (e.g., iron, vitamin D, vitamin B12)

What is the relationship between specific micronutrient supplements for infants fed human milk and infant formula and 1) micronutrient status; 2) growth, size, and body composition; and 3) adverse effects to replete infants?

Complementary foods and beverages*: Timing of introduction, types, and amounts
*Beverages (cow's milk, water, 100% fruit juice, sugar-sweetened beverages, milk alternatives)

What is the relationship between complementary feeding and 1) micronutrient status; 2) growth, size, and body composition; 3) developmental milestones; 4) food allergies and other atopic allergic disease; 5) bone health; 6) long-term health outcomes; and 7) preference and acceptance of encouraged foods such as fruits, vegetables, fat-free/low-fat dairy, and whole grains later in childhood?

What is the relationship between complementary feeding, including foods and beverages, and achieving nutrient and food group recommendations of infants and toddlers?

Note: Evidence related to dietary patterns (including beverage patterns) consumed during the complementary feeding period will be considered as part of these questions.

Fats

What is the relationship between certain types of fats consumed (to include omega 3 and 6, level of saturation, chain length, ratio, absolute and relative amounts, etc.) during birth to 24 months of age and neurocognitive development, as well as other protective health benefits?

Children and adolescents, ages 2-18 years old (with data reviewed by age group)

Topic

Dietary patterns to promote health and normal growth and meet nutrient needs

Question(s)

What is the relationship between specific dietary patterns (Dietary Guidelines-aligned/MyPlate/Healthy U.S.-style, Mediterranean-style, Dietary Approaches to Stop Hypertension (DASH), vegetarian/vegan, and low-carbohydrate diets) consumed during childhood and adolescence and varying types/styles of food preparation and 1) growth, size, and body composition; 2) bone health; and 3) long-term health outcomes?

Are changes to the USDA Food Patterns needed based on the relationships identified? If so, how well do USDA Food Pattern variations meet nutrient recommendations for children and adolescents?

What is the contribution and impact of health promoting bioactive dietary components from USDA Food Pattern variations for children/adolescents?

The current question does not consider potential bioactive dietary components that do not currently meet the criteria for “nutrients,” yet have emerging evidence over the past 5 years suggesting health benefits. This type of question should be incorporated into **each** of the life stages addressed with a careful and rigorous assessment of the strength of the totality of the evidence for such benefit to determine if dietary guidance is supported by the evidence available.

Beverages (cow’s milk, water, 100% fruit juice, sugar-sweetened beverages, milk alternatives, caffeinated beverages)

What is the relationship between beverage consumption during childhood and adolescence and achieving nutrient and food group recommendations?

What is the contribution and impact of bioactive dietary components found in beverages on health during childhood/adolescence?

This type of question should be incorporated into **each** of the life stages addressed with a careful and rigorous assessment of the strength of the totality of the evidence for such benefit to determine if dietary guidance is supported by the evidence available.

Added sugars

What is the relationship between added sugar consumption during childhood and adolescence and achieving nutrient and food group recommendations, **taking into consideration the other nutrients and bioactive dietary components that may be found in the food/beverage sources of added sugars?**

How much added sugars can be accommodated in a healthy diet during childhood and adolescence while still meeting food group and nutrient needs?

Saturated fats

What is the relationship between saturated fat consumption (types and amounts) during childhood/adolescence and risk of cardiovascular disease?

Adults, ages 19-64 years old (with data reviewed by age group)

Topic

Question(s)

Dietary patterns to promote health, prevent disease, and meet nutrient needs

What is the relationship between specific dietary patterns (Dietary Guidelines-aligned/MyPlate/Healthy U.S.-style, Mediterranean-style, Dietary Approaches to Stop Hypertension (DASH), vegetarian/vegan, and low-carbohydrate diets) consumed during adulthood and 1) body weight or obesity; 2) risk of cardiovascular disease; 3) risk of type 2 diabetes; and 4) risk of certain types of cancer?

What is the contribution and impact of health promoting bioactive dietary components from USDA Food Pattern variations for adults 19-64?

What modifications to dietary patterns are effective in preventing or reversing declines in muscle mass or bone density during aging?

Peak bone mass is achieved in early adult years and lean body mass (muscle and bone) decreases throughout the adult years. Adding this question to the 19-64 years old life stage questions may help prevent these health issues in later life.

Are changes to the USDA Food Patterns needed based on the relationships identified? If so, how well do USDA Food Pattern variations meet nutrient recommendations for adults?

Beverages (cow's milk, water, 100% fruit juice, sugar-sweetened beverages, milk alternatives, caffeinated beverages)

What is the relationship between beverage consumption during adulthood and achieving nutrient and food group recommendations?

What is the contribution and impact of bioactive

dietary components found in beverages on health during adulthood?

Added sugars

What is the relationship between added sugars consumption during adulthood and achieving nutrient and food group recommendations?

How much added sugars can be accommodated in a healthy diet during adulthood while still meeting food group and nutrient needs?

Saturated fats

What is the relationship between saturated fats consumption (types and amounts) during adulthood and risk of cardiovascular disease?

Pregnancy and lactation

Topic

How additional calorie needs should be met during pregnancy and lactation

Question(s)

What is the relationship between specific dietary patterns (Dietary Guidelines-aligned/MyPlate/Healthy U.S.-style, Mediterranean-style, Dietary Approaches to Stop Hypertension (DASH), vegetarian/vegan, and low-carbohydrate diets) consumed among women who are pregnant and 1) risk of excessive gestational weight gain; 2) risk of gestational diabetes; 3) risk of hypertensive disorders and preeclampsia during pregnancy; 4) gestational age at birth; and 5) birth weight standardized for gestational age and sex?

What is the relationship between specific dietary patterns (Dietary Guidelines-aligned/MyPlate/Healthy U.S.-style, Mediterranean-style, Dietary Approaches to Stop Hypertension (DASH), vegetarian/vegan, and low-carbohydrate diets) consumed among women who are lactating and 1) human milk composition and quantity; 2) appropriate postpartum weight loss; and 3) excessive postpartum weight retention?

	Are changes to the USDA Food Patterns needed based on the relationships identified? If so, how well do USDA Food Pattern variations meet nutrient recommendations for women who are pregnant or lactating?
Dietary supplements (e.g., iron, folate, vitamin D)	What is the relationship between micronutrient supplements consumed during pregnancy and lactation and 1) micronutrient status of the mother; 2) birth outcomes; 3) human milk composition and quantity; and 4) adverse outcomes in replete women?
Diet during pregnancy and lactation and risk of food allergy in the infant	What is the relationship between maternal diet during pregnancy and lactation and risk of infant allergies and other atopic allergic disease?
Seafood	What is the relationship between seafood consumption during pregnancy and lactation and 1) neurocognitive development of the infant; and 2) other health outcomes including later in life?
Beverages (cow's milk, water, 100% fruit juice, sugar-sweetened beverages, milk alternatives, caffeinated beverages)	What is the relationship between beverage consumption during pregnancy and lactation and 1) achieving nutrient and food group recommendations; 2) birth outcomes; and 3) human milk composition and quantity?
Alcoholic beverages	What is the relationship between maternal alcohol consumption during lactation and 1) human milk composition and quantity; 2) infant growth and development; and 3) neurocognitive development?
Older adults, ages 65 years and older (with data reviewed by age group)	
Topic	Question(s)
Dietary patterns to promote health, prevent disease, and meet nutrient needs	What is the relationship between specific dietary patterns (Dietary Guidelines-aligned/MyPlate/Healthy U.S.-style, Mediterranean-style, Dietary Approaches to Stop Hypertension (DASH), vegetarian/vegan, and low-carbohydrate diets) consumed across the

lifespan and 1) body weight or obesity **or body composition including sarcopenia**; 2) risk of cardiovascular disease; 3) risk of type 2 diabetes; 4) risk of certain types of cancer; and 5) risk of osteoporosis?

What modifications to dietary patterns are effective in preventing or reversing declines in muscle mass or bone density in older adults?

Are changes to the USDA Food Patterns needed based on the relationships identified? If so, how well do USDA Food Pattern variations meet nutrient recommendations for older adults, age 65-80 years and those age 81+ years?

What is the evidence of the relationship of the amount, quality, and timing of dietary protein intake (types/sources and amounts) by older adults and healthy body composition including muscle mass?

A careful and rigorous systematic review of the evidence on this topic is required given the emerging and new evidence in the last five years.

Does the evidence support changes in dietary patterns to increase older adults' protein needs, enhance quality of their protein intake, and modify the meal spacing/timing of their protein intake?

What is the evidence of the relationship of fiber intake by older adults and improved digestion and gut health?

Fiber consumption, as well as the consumption of other nutrients and dietary bioactive components, should be considered within the context of total diet for older adults, as complex interactions among various nutrients, dietary components, and medications/dietary supplements may alleviate or contribute to dietary deficiencies. While these

possible interactions are particularly important for this life stage, it is also a consideration for *all* life stages.

Dietary supplements (e.g., calcium, iron, vitamin D, vitamin B12)

What is the relationship between specific micronutrient supplements consumed by adults ages 65+ and 1) micronutrient status; 2) body composition; and 3) adverse effects to replete individuals?

Specific nutritional needs related to older adults

What modifications to food and beverage choices promote meeting nutrient needs in older adults with impaired dentition, dry mouth, or other aspects of aging that interfere with food and beverage consumption, **including nutrient absorption/ food digestion concerns?**

What modifications to dietary patterns can help alleviate malnutrition risk in older adults with 1) limited access (transportation and location) to full-service grocery stores; 2) limited ability to prepare foods; and 3) frailty (i.e., difficulty opening packaging or cutting produce and meats into smaller portions)?

ASN welcomes the opportunity to serve as a resource to both USDA and HHS as you move forward with the evaluation of the latest nutrition science. The ASN membership has a wealth of expertise in nutrition science across the entire research spectrum from basic science to health policy, from discovery to application. ASN offers our assistance in identifying subject matter experts on select topics when necessary throughout the development process. ASN has 17 Research Interest Sections to draw from, with experts in such topical areas as Maternal, Perinatal and Pediatric Nutrition; Aging and Chronic Disease; Diet and Cancer; Obesity; Community and Public Health Nutrition; and Nutritional Epidemiology, to name a few.

ASN strongly encourages the overall systematic review of the totality of the evidence to be considered as new topics and scientific questions are determined. Nutrition, like all sciences, evolves with new research and information. We fully recognize that there may be a lack of evidence, limitations in the evidence or insufficient evidence for one or more specific questions, but strongly encourage that scientific judgement be used based on the assessment of the totality of the evidence to determine guidance to advance and improve public health.

Sincerely,

A handwritten signature in black ink that reads "Mary Ann Johnson". The script is fluid and cursive, with the first letters of each name being capitalized and prominent.

Mary Ann Johnson, Ph.D.
ASN President, 2017-2018