

# 2020 Dietary Guidelines Advisory Committee: DRAFT - Part D. Chapter 3: Lactation

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*This chapter includes questions examined by the  
Pregnancy and Lactation, Dietary Fats and Seafood, and  
Frequency of Eating Subcommittees*

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# INTRODUCTION (1 of 3)

- Maternal nutrition is a key factor influencing the health of both the lactating woman and her child
- Nutrient requirements during lactation are intended to support the nutritional status of the woman and to provide the additional amounts of energy and nutrients associated with milk synthesis and the secretion of nutrients into human milk
- For many nutrients, the requirements during lactation differ from those during pregnancy, so women who are lactating should adapt their dietary choices and supplement use to meet those needs
  - 70% of women who are lactating use dietary supplements
  - 50% of the women continued to use prenatal supplements during lactation
- In well-nourished women, the energy requirements for lactation take into account mobilization of maternal fat stores, which may assist women in postpartum weight loss

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# INTRODUCTION (2 of 3)

- Concentrations of some micronutrients in human milk, but not all, are correlated with maternal nutrient status and can be influenced by diet and supplement use
- Human milk has a unique array of nutrients and bioactive substances that support optimal infant growth and development and may influence neurocognitive development and the risk of atopic diseases

# INTRODUCTION (3 of 3)

- For the first time, the *2020-2025 Dietary Guidelines for Americans* will specifically focus on guidelines for women who are lactating.
- Previous Committees (2005, 2010, 2015) have provided some guidance on specific foods, food components, or nutrients and lactation outcomes.
- This Committee re-examined seafood consumption and omega-3 fatty acid supplements. In addition, several new relationships were examined, focusing mainly on maternal dietary patterns during lactation and specific health outcomes.

# LIST OF QUESTIONS (1-4)

1. What is the relationship between **dietary patterns** consumed during lactation and **postpartum weight loss**?
2. What is the relationship between **frequency of eating** during lactation and **postpartum weight loss**?
3. What is the relationship between **dietary patterns** consumed during lactation and **human milk composition and quantity**?
4. What is the relationship between **maternal diet during lactation** and risk of **child food allergies and atopic allergic diseases, including atopic dermatitis, allergic rhinitis, and asthma**?

# LIST OF QUESTIONS (5-8)

5. What is the relationship between **dietary patterns** consumed during lactation and **developmental milestones, including neurocognitive development** in the child?
6. What is the relationship between **seafood consumption** during lactation and **neurocognitive development** in the child?
7. What is the relationship between **omega-3 fatty acids from supplements** consumed during lactation and **developmental milestones, including neurocognitive development in the child**?
8. What is the relationship between **folic acid from supplements and/or fortified foods** consumed during lactation and 1) maternal micronutrient status, 2) human milk composition, and 3) developmental milestones, including neurocognitive development in the child?

# METHODOLOGY

- All questions were answered using new NESR systematic reviews.

**Final protocols and draft conclusion statements available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov)  
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# REVIEW OF THE SCIENCE

- More than 30 articles, representing over 25 studies, were included in 6 out of 8 NESR systematic reviews. No studies were identified that met the inclusion criteria for Questions 5 and 6.
- 37 draft conclusion statements across the 8 questions.
- The Subcommittees were unable to grade 33 of the 37 conclusion statements due to insufficient evidence.
- Notable gaps in research have been identified and specific research recommendations to address these gaps will be discussed in the report.

# REVIEW OF THE SCIENCE – Key Findings (1 of 2)

## 3. What is the relationship between dietary patterns consumed during lactation and human milk composition and quantity?

- Limited evidence suggests that the maternal consumption of diets higher in fat (>35 percent fat) and lower in carbohydrate during lactation is related to higher total fat in human milk collected in maternal postprandial period.
- Limited evidence suggests that certain maternal dietary patterns during lactation, including diets based on macronutrient distributions, are related to the relative proportions of saturated fat and monounsaturated fat in human milk, and of polyunsaturated fats in human milk collected in the maternal postprandial period.

# REVIEW OF THE SCIENCE – Key Findings (2 of 2)

**8. What is the relationship between folic acid from supplements and/or fortified foods consumed during lactation and 1) maternal micronutrient status, 2) human milk composition, and 3) developmental milestones, including neurocognitive development in the child?**

- Moderate evidence indicates that folic acid supplements consumed during lactation are positively associated with red blood cell folate, and may be positively associated with serum or plasma folate.
- Moderate evidence indicates that folic acid supplements consumed during lactation do not influence folate levels in human milk.

# DISCUSSION (1 of 3)

- The 2020 Committee was unable to draw conclusions regarding maternal dietary patterns or frequency of eating during lactation and PPWL due to a lack of evidence.
- No conclusions regarding maternal dietary patterns and human milk composition other than total fat and fatty acid composition were drawn
- No conclusions regarding relationships between maternal dietary patterns, seafood intake, omega-3 fatty acid supplementation or folic acid supplementation and neurocognitive outcomes in the child could be drawn due to a lack of evidence

# DISCUSSION (2 of 3)

- The Committee did find evidence to recommend certain dietary patterns during *pregnancy*, the components of which align with dietary patterns associated with lower overall chronic disease risk in women who are *not pregnant or lactating*, supporting relatively consistent dietary patterns associated with healthy outcomes in women of reproductive age.
- Each of the 3 Food Patterns (**Healthy U.S.-Style; Healthy Vegetarian or Healthy Mediterranean-Style**) described in ***Chapter 14: USDA Food Patterns for Individuals Ages 2 Years and Older*** is expected to meet nutrient needs for women who are lactating *with the possible exception of:*
  - Vitamin A
  - Choline
  - Vitamin D
  - Vitamin E

# DISCUSSION (3 of 3)

- Despite the lack of evidence found to determine the relationship between seafood consumption during lactation and neurocognitive outcomes in the child, seafood choices are important components of a healthy dietary pattern for women who are not pregnant or lactating, as well as for those who are pregnant.
- Additionally, seafood may increase the DHA content of human milk and provides potential shortfall nutrients for women who are lactating

# SUMMARY: Draft Strategies for Women Who Are Lactating (#1 and #2 of 8)

1. Encourage women who are lactating to consume a wide variety of foods that are consistent with the dietary patterns described in ***Chapter 14: USDA Food Patterns for Individuals Ages 2 Years and Older***
2. Encourage consumption of foods and beverages that are good sources of potential shortfall nutrients identified in ***Chapter 1: Current Intakes of Foods, Beverages, and Nutrients*** or that or that are lower than recommended for women who are lactating in the USDA Food Patterns, including choline, magnesium, protein, fiber, and vitamins A, D and E.

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# SUMMARY: Draft Strategies for Women Who Are Lactating (#3 and #4 of 8)

3. Encourage women to discontinue the use of prenatal supplements during lactation unless they are medically indicated, as these supplements are usually formulated to meet the high iron requirements of pregnant women, not to meet the nutritional requirements for lactating women, and can therefore result in iron intakes above the UL.
4. Encourage women to not avoid potential allergenic foods during lactation, unless it is medically indicated to protect the mother's health.

# SUMMARY: Draft Strategies for Women Who Are Lactating (#5 and #6 of 8)

5. Encourage women to follow guidance from the 2015 Dietary Guidelines Advisory Committee and the AAP that, “women who are breastfeeding should consult with their health care provider regarding alcohol consumption.” This Committee did not review evidence regarding alcoholic beverage consumption by lactating women, but supports this prior guidance.
6. Encourage women to follow guidance from the 2015 Dietary Guidelines Advisory Committee that “...those who are breastfeeding should consult their health care providers for advice concerning caffeine consumption.” This Committee did not review evidence regarding caffeine consumption by lactating women, but supports this prior guidance.

# SUMMARY: Draft Strategies for Women Who Are Lactating (#7 of 8)

7. Encourage women who are breastfeeding to consume seafood in accordance with recommendations by the 2015-2020 Dietary Guidelines for Americans, the Food and Drug Administration, and the Environmental Protection Agency: at least 8 and up to 12 ounces of a variety of seafood per week, from choices that are lower in methyl mercury.

# SUMMARY: Draft Strategies for Women Who Are Lactating (#8 of 8)

8. Encourage women to maintain a healthy pre-pregnancy weight, achieve appropriate weight gain during pregnancy, initiate and maintain breastfeeding throughout their child's infancy, and return to a healthy weight during the postpartum period. This Committee did not review evidence regarding relationships of maternal BMI or GWG to lactation success; however, existing evidence shows that high prepregnancy BMI and excess GWG are risk factors for suboptimal breastfeeding outcomes.

# SUMMARY:

## Draft Support for Federal Programs (1 of 3)

1. The Committee supports efforts by Federal programs, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), to encourage women who are lactating to take advantage of available nutrition counseling services. In addition, policy, systems, and environmental change strategies and competitive pricing of healthy food and beverage choices can help ensure that women of all economic strata can afford them. Similar healthy foods and beverages should be routinely stocked and distributed by food pantries and other food assistance venues and recommended by food assistance programs.

# SUMMARY:

## Draft Support for Federal Programs (2 of 3)

2. Given the documented health benefits for the mother and infant, the Committee supports broader implementation of Federal programs that promote, protect and support breastfeeding.

# SUMMARY:

## Draft Support for Federal Programs (3 of 3)

3. The Committee supports efforts to further develop surveillance systems and databases to report food and beverage intakes of women who are lactating.
  - Represent diverse subgroups of women
  - Include effects of food security and economic status on food intake
  - Include food and beverage composition and supplement data that can show how fortified foods and supplemental sources of nutrients contribute to overall nutrient intake and dietary quality during lactation, and ideally should be linked to data on nutrient composition of human milk.

# FUTURE RESEARCH NEEDS

- Despite the importance of the questions examined in this chapter for the long-term health of the mother and child, the available evidence for most questions was insufficient to form conclusion statements.
- Many questions remain to be answered regarding the content and pattern of the diet of women during lactation and the influence on PPWL, human milk composition and quantity, and child outcomes, in addition to other questions that the Committee was not asked to address

# DRAFT - Part D. Chapter 3: Lactation

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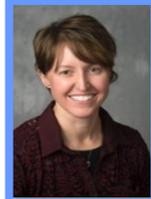
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