Generation Health: Shopping to Improve Health Equity in Black Children

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Registered Dietitian Nutritionist

DISCLOSURES

- Financial: Funded by American Dairy Association North East
- Non-Financial: Owner of Nutrition By Nada LLC

Learning Objectives

- Discuss health and nutrition disparities impacting health outcomes early childhood.
- Describe healthy eating patterns recommended by Dietary Guidelines for Americans, keying into the role of dairy foods for growth and development during the first five years of life.
- Identify educational and dietary intervention strategies that target misconceptions around lactose intolerance and the potential unintended nutritional consequences of certain restrictive diets to improve the nutritional wellbeing of Black children.
- Enhance knowledge and practical skills to support shoppers to adopt healthy dietary patterns using culturally relevant approaches, providing real-world applications of nutrition recommendations to pediatric patients and their families.

Health Disparities Impact Black Americans at Every Life Stage

Healthy Eating Puts Us On a Pathway to Lifelong Wellness




Birth – 23 Months

- Lower risk of overweight and obesity
- Lower risk of type 1 diabetes
- Adequate iron status and lower risk of iron deficiency
- Lower risk of peanut allergy
- Lower risk of asthma

Children and Adolescents

- Lower adiposity
- Lower total and low-density lipoprotein (LDL) cholesterol

Women Who Are Pregnant or Lactating

- Favorable cognitive development in the child
- Favorable folate status in women during pregnancy and lactation

Adults, Including Older Adults

- Lower risk of all-cause mortality
- Lower risk of cardiovascular disease
- Lower risk of cardiovascular disease mortality
- Lower total and LDL cholesterol
- Lower blood pressure
- Lower risk of obesity
- Lower body mass index, waist circumference, and body fat
- Lower risk of type 2 diabetes
- Lower risk of cancers of the breast, colon, and rectum
- Favorable bone health, including lower risk of hip fracture

*See the *Scientific Report of the 2020 Dietary Guidelines Advisory Committee* for more information about the relationships between diet and health examined by the 2020 Dietary Guidelines Advisory Committee.

Health Disparities & Nutrition are Inextricably Linked

Black adults are*:

- 60% more likely to have been diagnosed with diabetes
- 50% more likely to have a stroke
- 40% more likely to have high blood pressure
- 20% more likely to die from heart disease
- 1.3x more likely to be obese

Children and Adolescents:

- Non-Hispanic Black girls have the highest prevalence of obesity (25.1%)
- Non-Hispanic Black teens (12-19 years) have the highest prevalence of high blood pressures (6.27%)

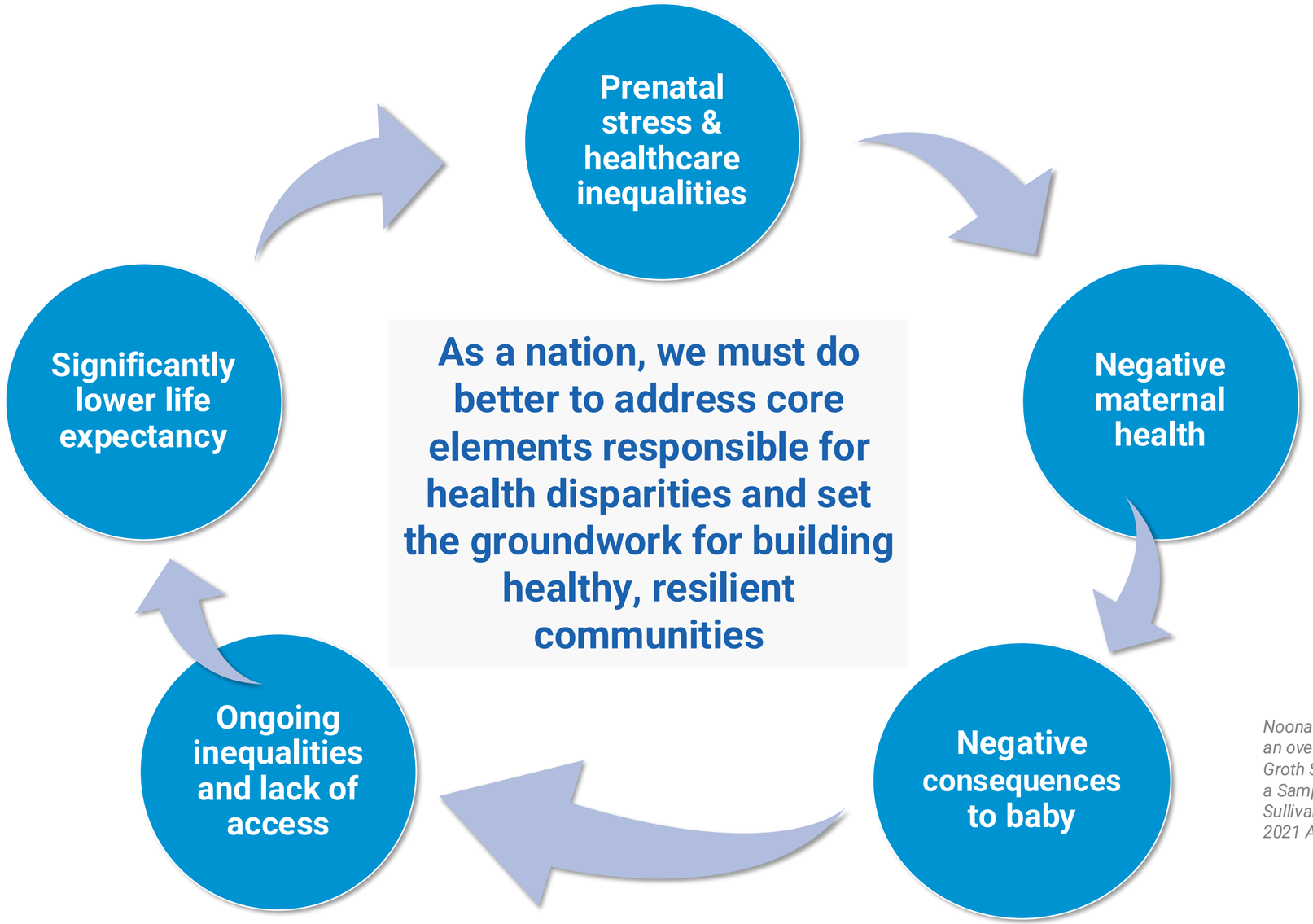
**% more likely than non-Hispanic white adults*

Modifiable Risk Factors
(include but are not limited to)

- ✓Diet
- ✓Physical Activity
- ✓Weight
- ✓Smoking
- ✓Alcohol Intake
- ✓Stress

US Department of Health and Human Services. Office of Minority Health.
https://www.minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=61

Every Child Deserves a Fair Start to Reach Their Full Potential



As a nation, we must do better to address core elements responsible for health disparities and set the groundwork for building healthy, resilient communities

*"If we really want to change the trajectory of health inequities and social justice issues, we need to start investing more in the **first 1000 days of life**."*

Rafael Pérez-Escamilla, PhD,
maternal-child health researcher,
Yale School of Public Health
and 2010 Dietary Guidelines Advisory
Committee member

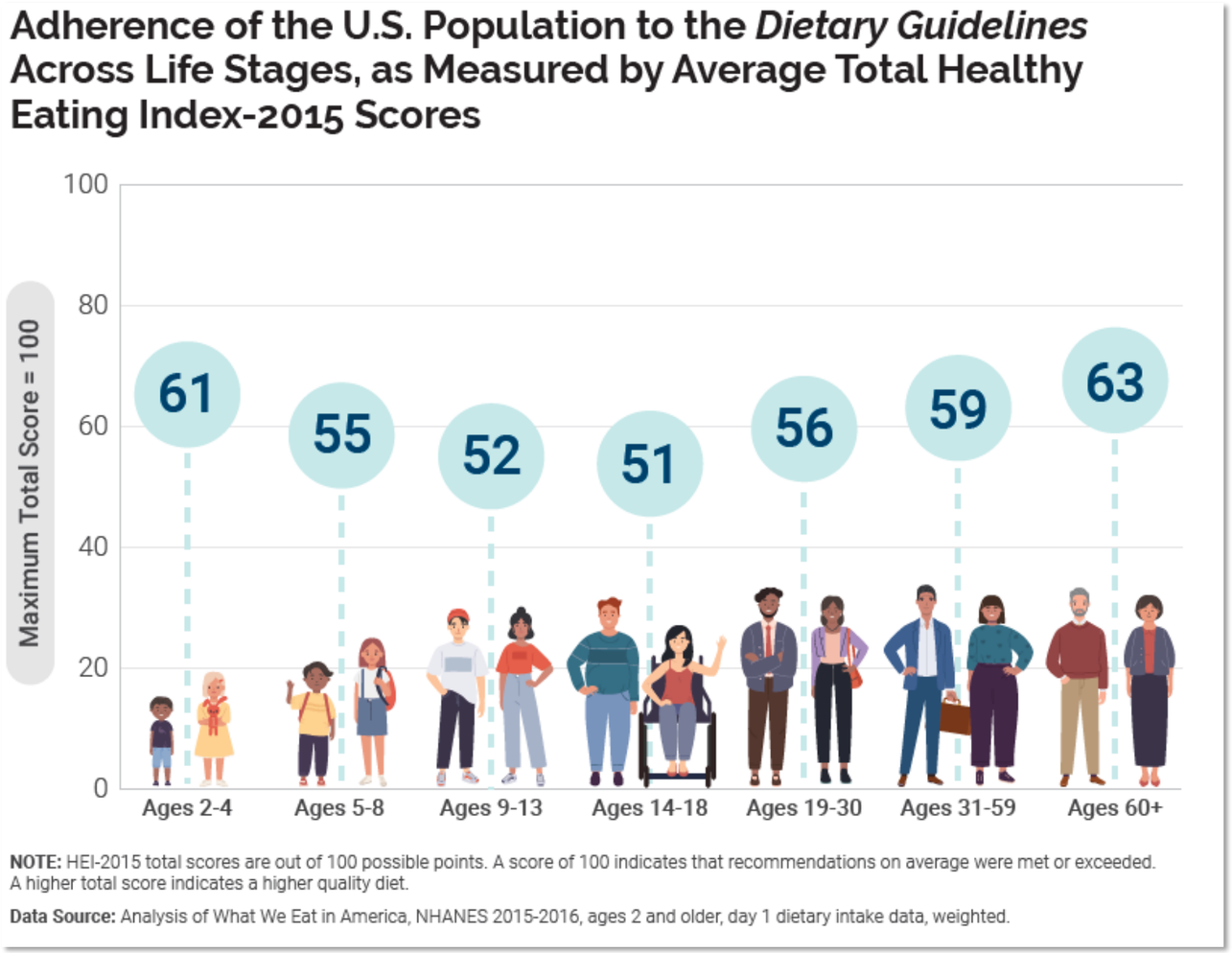
Noonan AS, Velasco-Mondragon HE, Wagner FA. Improving the health of African Americans in the USA: an overdue opportunity for social justice. Public Health Rev. 2016;37:12.
Groth SW, Stewart PA, Ossip DJ, Block RC, Wixom N, Fernandez ID. Micronutrient Intake Is Inadequate for a Sample of Pregnant African-American Women. J Acad Nutr Diet. 2017;117(4):589-598
Sullivan Barger, Theresa. How the 'First 1,000 Days' Could Shape Your Baby's Future. Discover Magazine. 2021 Aug 18

Dietary Guidelines for Americans

U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at DietaryGuidelines.gov.

The Importance of Healthy Eating Patterns in Addressing Health Disparities

There’s Room to Improve What We Eat



Percentage of Americans ***not*** meeting recommendations

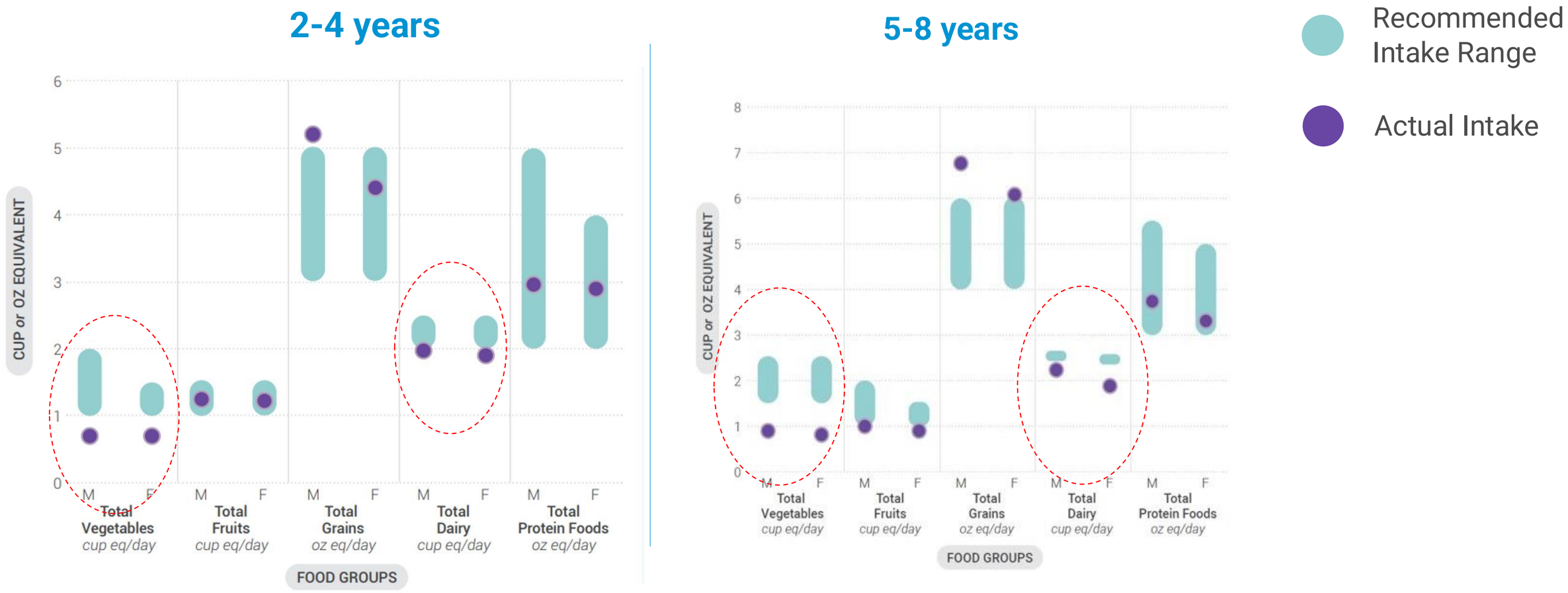
- 98% whole grains
- 90% vegetables
- 90% dairy foods
- 80% fruit

USDA and USDHHS. Dietary Guidelines for Americans, 2020-2025. 9th Edition.

Children Ages 2-8 Years

Fall Short on Dietary Guidelines for Americans Recommendations

Average Daily Food Group Intakes Compared to Recommended Intake Ranges

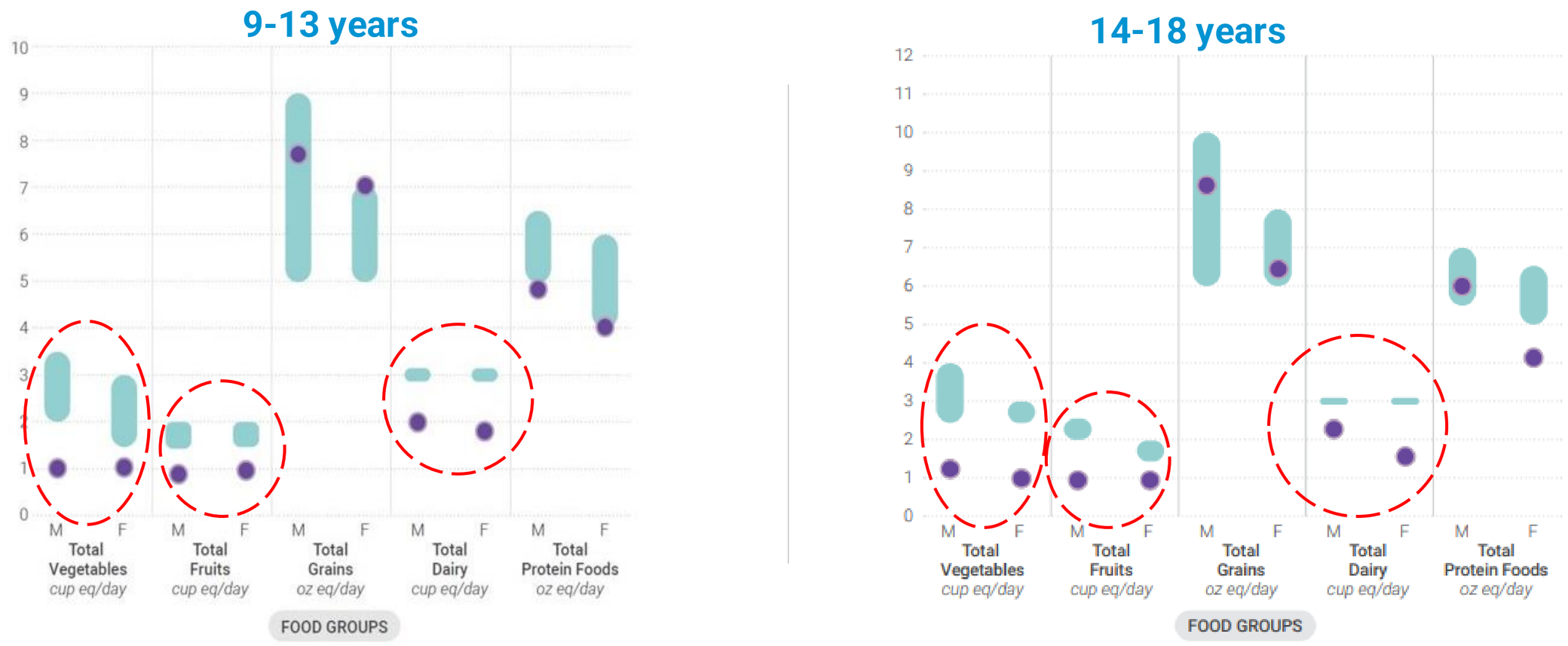


U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at DietaryGuidelines.gov.

Children and Adolescents Ages 9-18 Years

Fall Short on Dietary Guidelines for Americans Recommendations

Average Daily Food Group Intakes Compared to Recommended Intake



U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at DietaryGuidelines.gov.

Black Children Consume Far Less Fruits & Vegetables

Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Fruit, Vegetable, and Sugar-Sweetened Beverage Intake Among Young Children, by State — United States, 2021

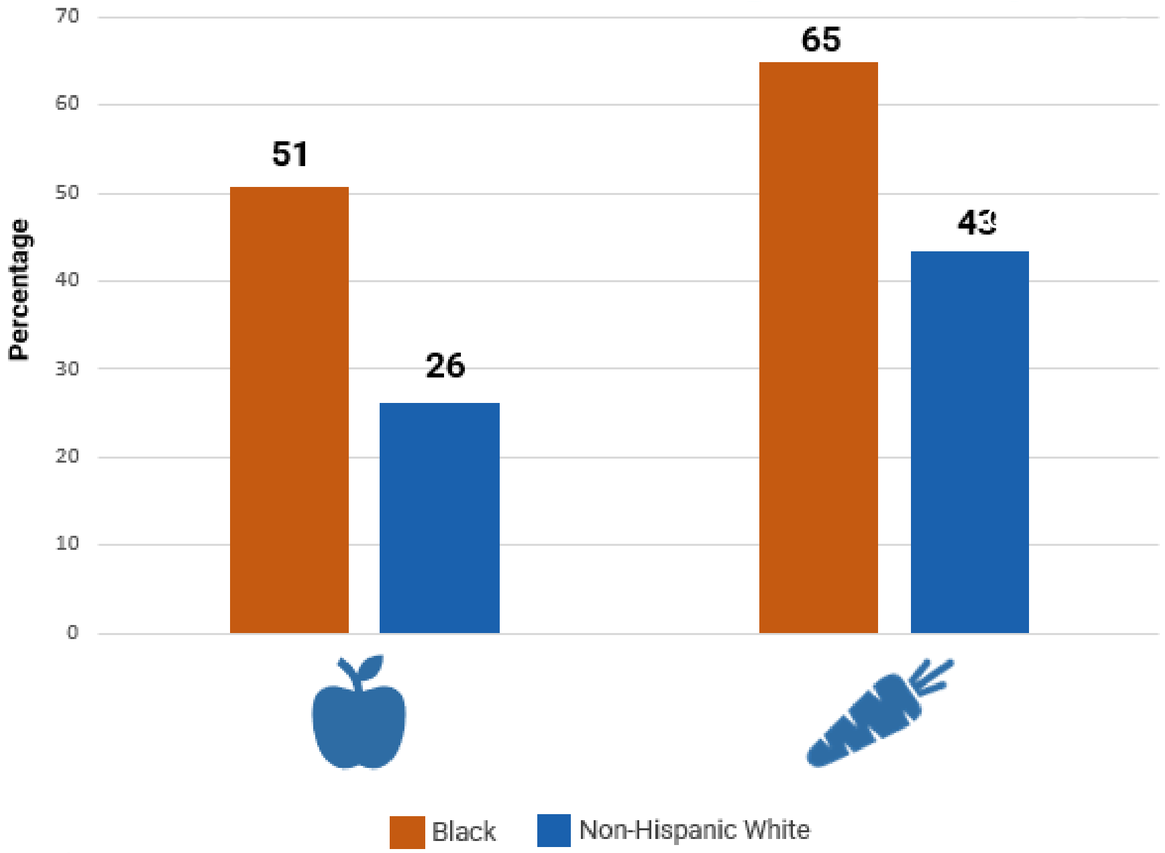
Weekly / February 17, 2023 / 72(7);165–170

Heather C. Hamner, PhD[1]; Carrie A. Dooyema, MPH, MSN[1]; Heidi M. Blanck, PhD[1]; Rafael Flores-Ayala, DrPH[1]; Jessica R. Jones, PhD[2]; Reem M. Ghandour, DrPH[2]; Ruth Petersen, MD[1] (VIEW AUTHOR AFFILIATIONS)

32% of children aged 1-5 years did not eat a daily fruit

49% of children aged 1-5 years did not eat a daily vegetable

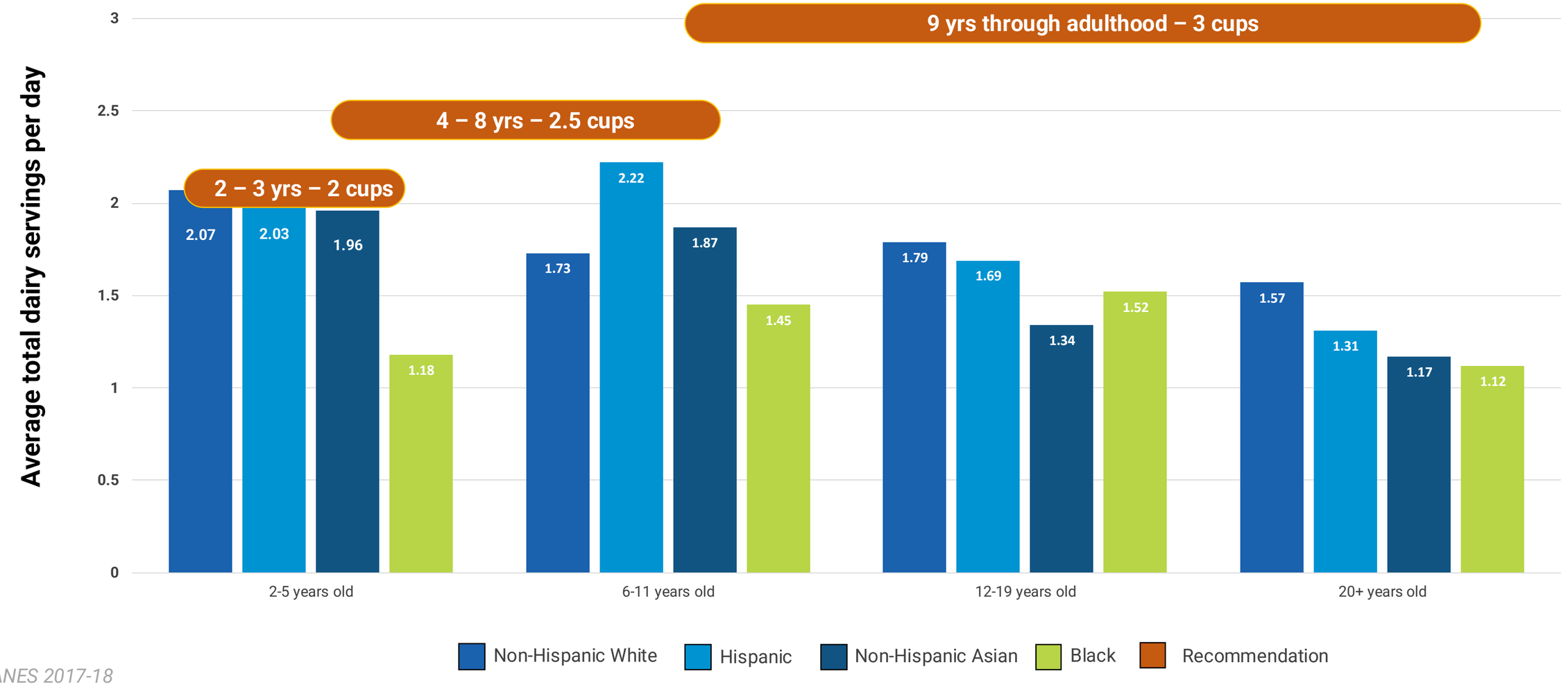
Percent of Children Who Do Not Consume a Fruit or Vegetable Daily



Heather C. Hamner, PhD; Carrie A. Dooyema, MPH, MSN; Heidi M. Blanck, PhD; Rafael Flores-Ayala, DrPH; Jessica R. Jones, PhD; Reem M. Ghandour, DrPH; Ruth Petersen, MD. Fruit, Vegetable, and Sugar-Sweetened Beverage Intake Among Young Children, by State — United States, 2021. MMWR, Volume 72, Issue 07 — February 17, 2023

The Dairy Gap is Evident at a Shockingly Early Age

Black 2-5 year olds >1 serving short/day and the trend continues



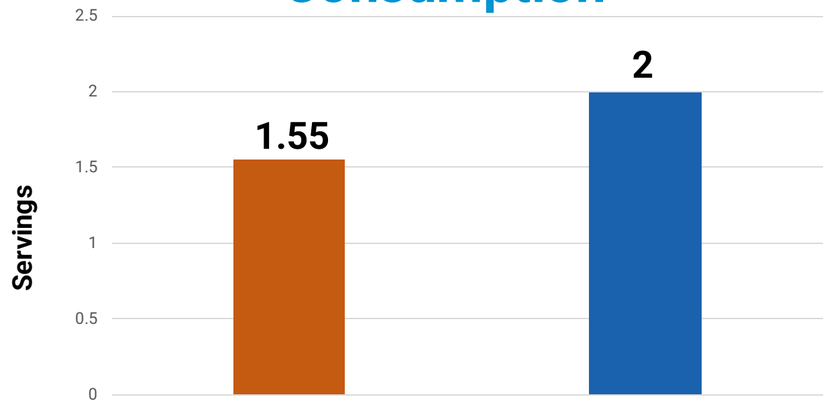
NHANES 2017-18

Dietary Disparities in Children Aged 2 Years +

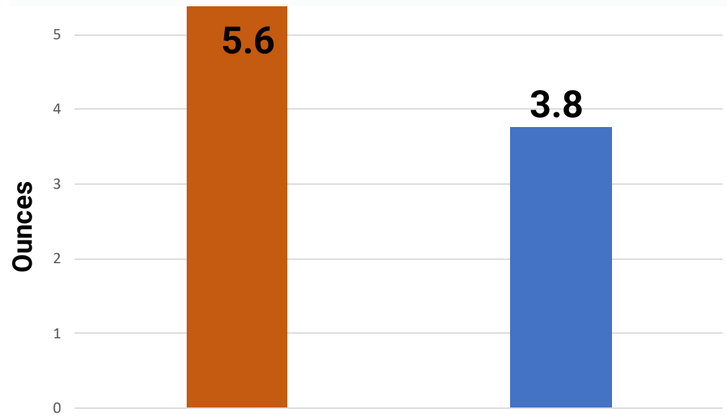
On average, Black children…

- Consume less dairy servings
- Consume more sugar-sweetened beverages
- Have higher rates of inadequate calcium & vitamin D

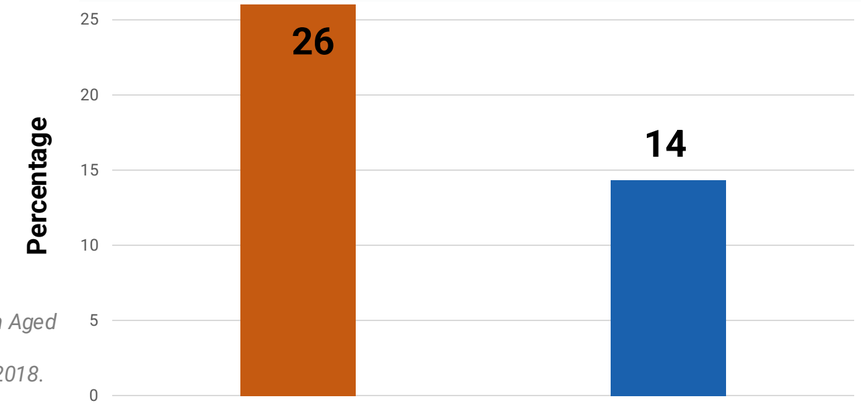
Average Daily Dairy Consumption



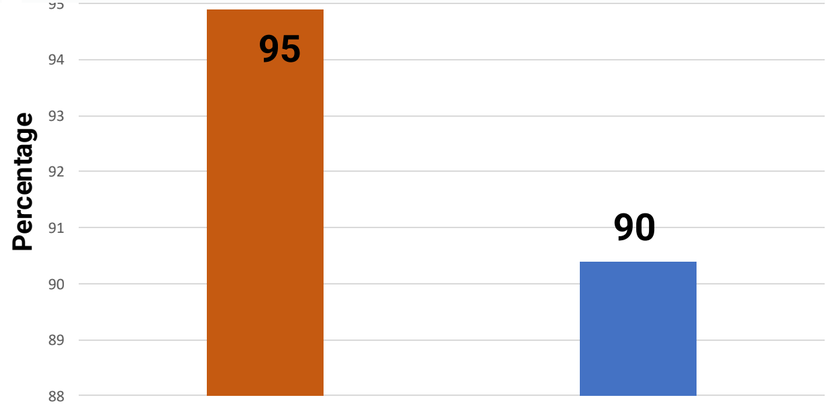
Average Daily Sugar-Sweetened Beverage Consumption



Inadequate Calcium

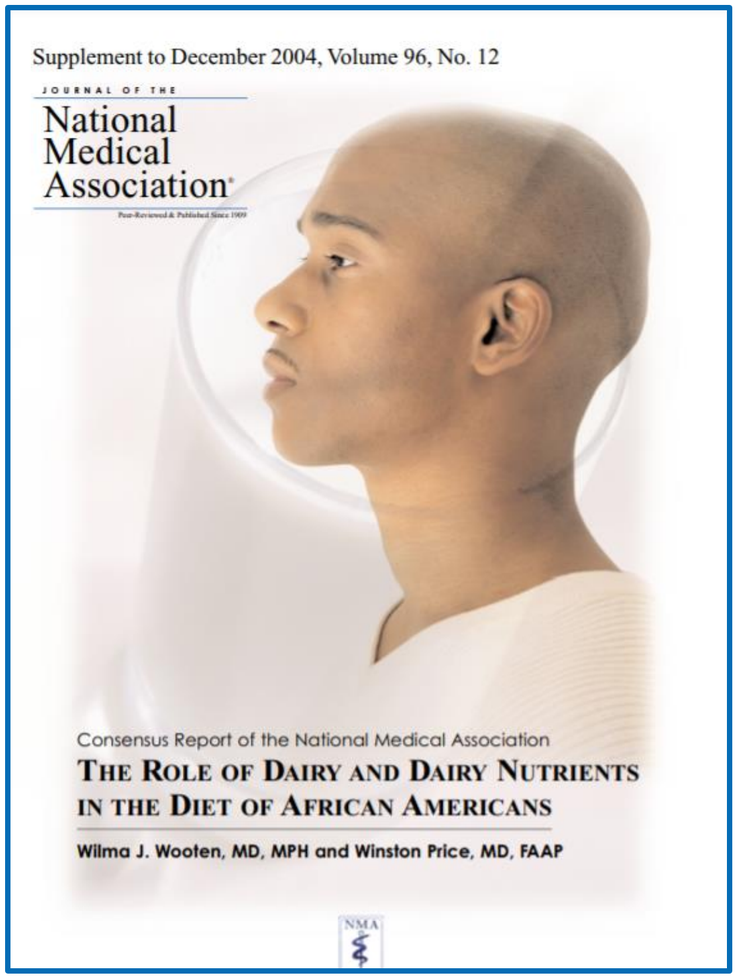


Inadequate Vitamin D

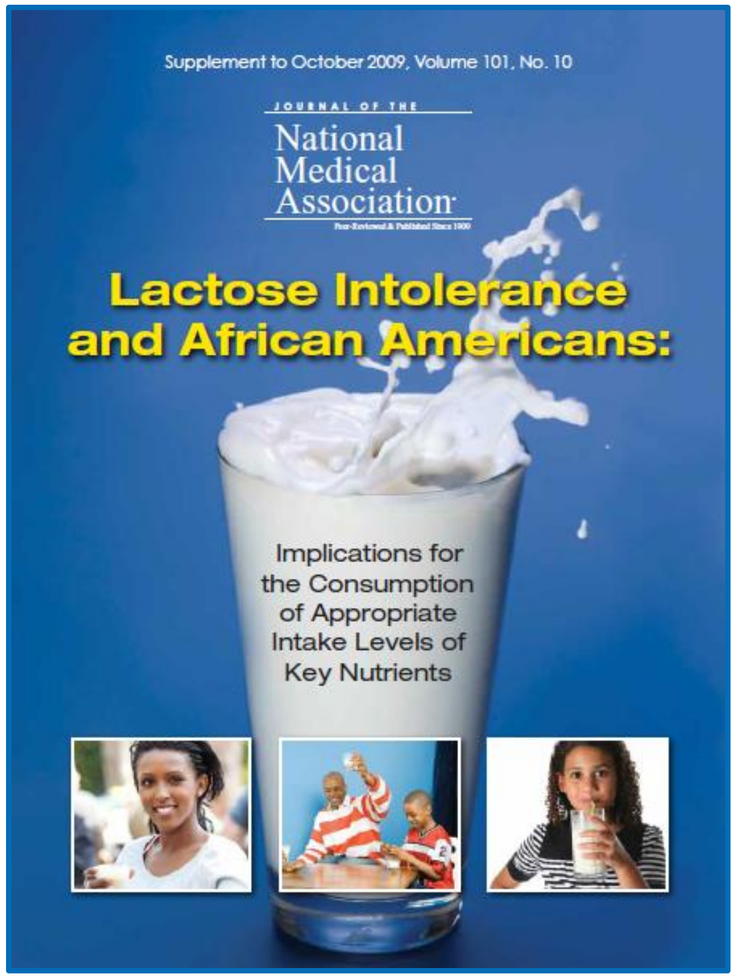


Black Non-Hispanic White

Bailey ADL et al. Nutrient Intake Adequacy from Food and Beverage Intake of US Children Aged 1-6 Years from NHANES 2001-2016. Nutrients. 2021;13(3).
Cifelli CJF et al. Disparity in Dairy Servings Intake by ethnicity and age in NHANES 2015-2018. Current Developments in Nutrition. 2023;In Press
Demmer E et al. Ethnic disparities of beverage consumption in infants and children 0-5 years of age; National Health and Nutrition Examination Survey 2011 to 2014. Nutr J. 2018;17(1):78.



2004



2009

NMA CONSENSUS STATEMENT

Lactose Intolerance and Health Disparities Among African Americans and Hispanic Americans: An Updated Consensus Statement

Rahn K. Bailey, MD, FAPA; Cecelia Pozo Fileti, MS, RD, FAND; Jeanette Keith, MD; Susanne Tropez-Sims, MD, MPH; Winston Price, MD; Sharon Denise Allison-Ottey, MD

Financial Disclosure: This study was supported by an unrestricted educational grant from the National Dairy Council.

Abstract: Dairy foods contribute nine essential nutrients to the diet including calcium, potassium and vitamin D; nutrients identified by the 2010 Dietary Guidelines for Americans as being "of public health concern" within the U.S. population. Milk and milk product intake is associated with better diet quality and has been associated with a reduced risk of chronic diseases or conditions including hypertension, cardiovascular disease, metabolic syndrome, Type 2 Diabetes and osteoporosis. Some research also indicates dairy food intake may be linked to reduced body fat, when accompanied by energy-restriction. On average, both African Americans and Hispanic Americans consume less than the recommended levels of dairy foods, and perceived or actual lactose intolerance can be a primary reason for limiting or avoiding dairy intake. True lactose intolerance prevalence is not known because healthcare providers do not routinely measure for it, and no standardized assessment method exists. Avoiding dairy may lead to shortfalls of essential nutrients and increased susceptibility to chronic disease. This updated Consensus Statement aims to provide the most current information about lactose intolerance and health, with specific relevance to the African American and Hispanic American communities. Topics covered include diagnostic considerations, actual and recommended dairy food intake and levels of consumption of key dairy nutrients among African Americans and Hispanic Americans; prevalence of self-reported lactose intolerance among various racial/ethnic groups; the association between dairy food intake, lactose intolerance and chronic disease; and research-based management recommendations for those with lactose intolerance.

Publication Indices: Pubmed.

Keywords: dairy ■ lactose intolerance ■ African Americans ■ Hispanic Americans ■ chronic disease ■ National Medical Association ■ Black ■ milk

J Natl Med Assoc. 2013; 105: 113-127.

Author Affiliations: Chairman of the Department of Psychiatry at Meharry Medical College and President of the National Medical Association (Rahn K. Bailey, MD, FAPA); President of C.P. Fileti Associates and Latino Health Communications (Cecelia Pozo Fileti, MS, RD, FAND); Associate Professor at University of Alabama, Birmingham and Gastroenterologist (Jeanette Keith, MD); Associate Dean of Clinical Affiliates, Dept. of Pediatrics Meharry Medical College, Meharry Medical College (Susanne Tropez-Sims, MD, MPH); Board Certified Pediatrician and Past-President of the National Medical Association (Winston Price, MD); and Executive Director of The COSHAR Foundation and CEO CARLDEN Inc. (Sharon Denise Allison-Ottey, MD).

Correspondence: Rahn K. Bailey, MD, FAPA, 8403 Colesville Road, Silver Spring, Suite 820, MD, 20910; Phone: (202) 347-1895, Fax: (202) 347-0722 (president@nmanet.org).

CONTENTS

2013

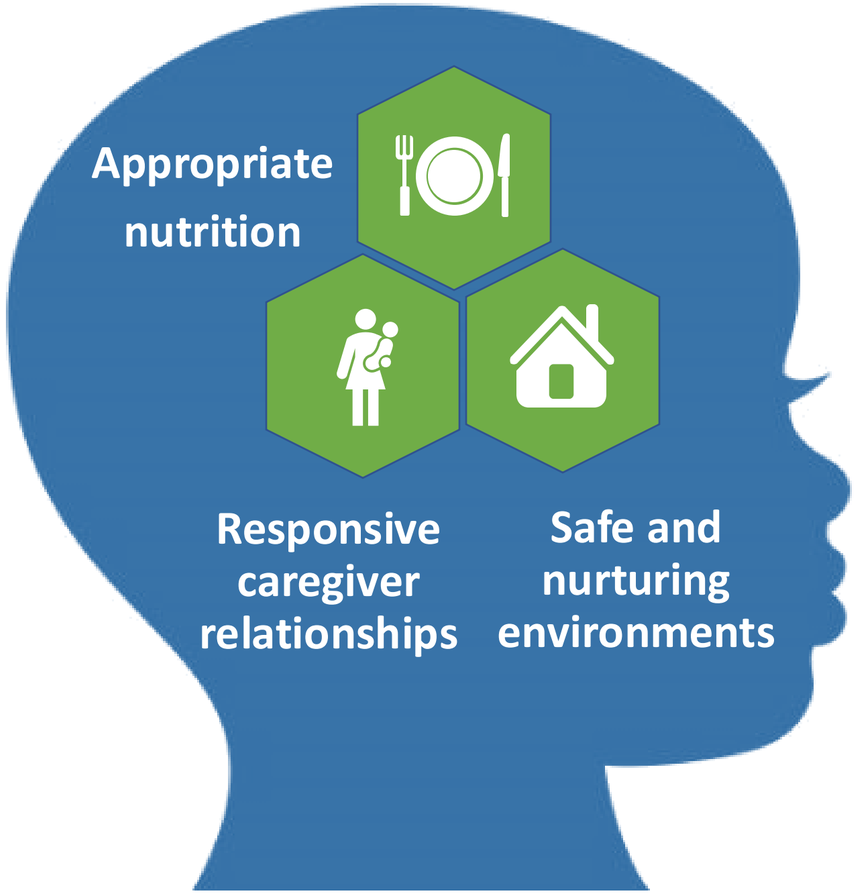
The Role of Dairy Food Intake for Improving Health among Black Americans Across the Life Course:

Evidence-Based Recommendations for Improving Patient Health

- Supplement to the *Journal of the National Medical Association*
- Series of evidence reviews with new research
- Highlights health disparities across 5 life stages and provides strategies for managing lactose intolerance

The First 5 Years of Life: Brains, Bones, and Bodies

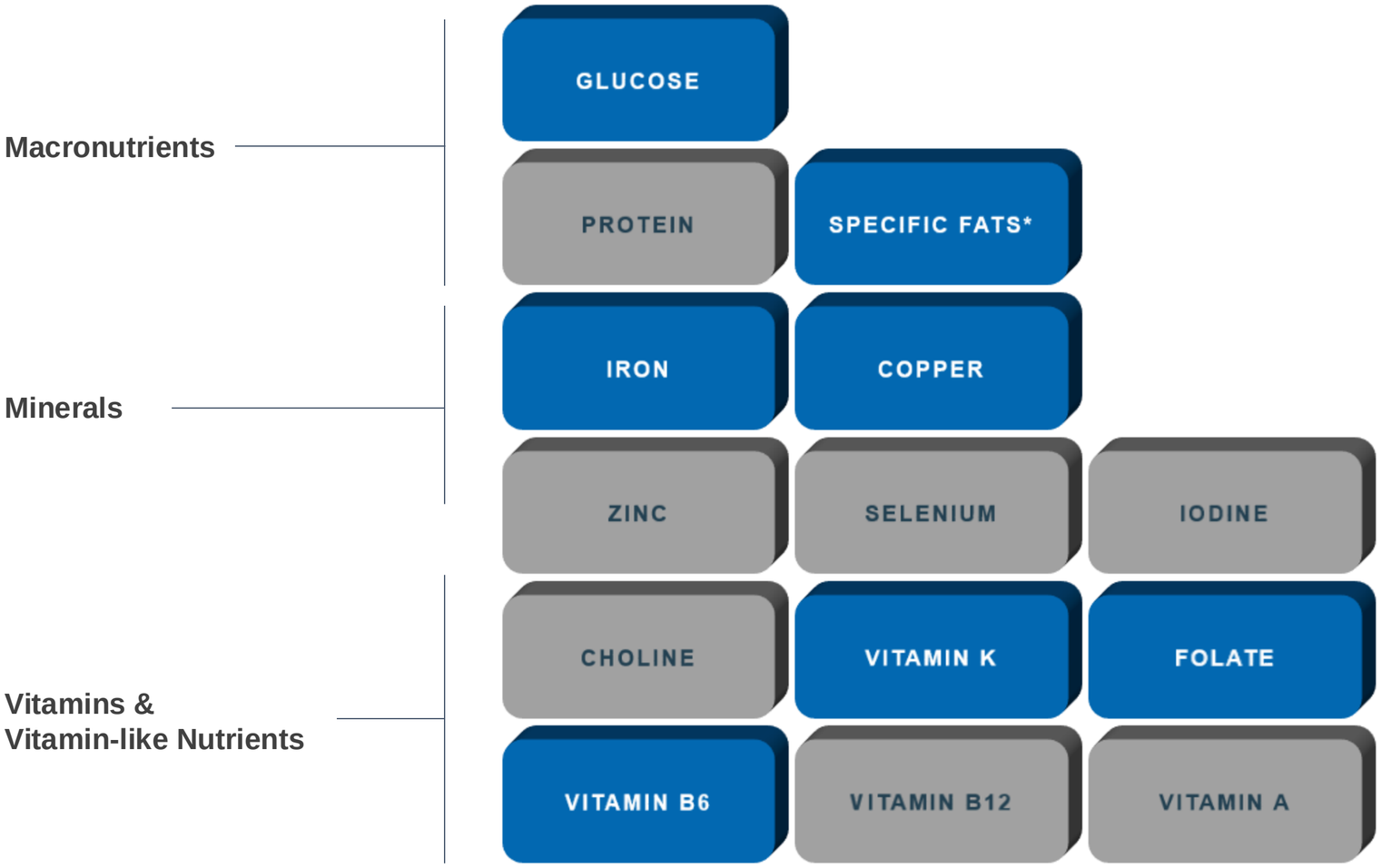
Nutrition is a fundamental component to neurodevelopment and lifelong wellbeing



When one or more of these components is absent, there can be negative effects on a child's physical, social, emotional and cognitive development.

Harvard University. Center on the Developing Child. (2010). The Foundations of Lifelong Health Are Built in Early Childhood.
ThousandDays.org. The First 1,000 Days: Nourishing America's Future.

Dairy Every Day is a Healthy Way to Support Brain Development



Green shading indicates nutrients in dairy foods

*Long-chain polyunsaturated fatty acids

Dairy foods offer 7 of the 14 nutrients AAP notes as important for early cognitive development.

1. Schwarzenberg SJ, Georgieff MK, AAP COMMITTEE ON NUTRITION. *Pediatrics.* 2018;141(2):e20173716
2. Georgieff MK, Brunette KE, Tran PV. *Dev Psychopathol*. 2015;27(2):411-423.
3. USDA, ARS. FoodData Central, 2019. fdc.nal.usda.gov

NDC NATIONAL DAIRY COUNCIL

Seafood, Dairy Foods and Eggs Offer Natural Sources of Iodine

What Foods Provide Iodine?[viii]

FOOD	SERVING SIZE	MICROGRAMS PER SERVING	PERCENT DAILY VALUE (DV)*
Cod, baked	3 ounces	158	105%
Low-fat milk (1%)	1 cup	88	59%
Yogurt, Greek, plain, fat-free	6 ounces	87	58%
Iodized table salt	¼ tsp	76	51%
Fish sticks	3 sticks	58	39%
Cottage cheese (reduced fat)	½ cup	39	26%
Pasta, cooked in iodized salt	1 cup	38	25%
Swiss cheese	3 slices**	36	24%
Crab, canned and cooked	3 ounces	32	21%
Egg, hardboiled	1 egg	26	17%
American cheese	3 slices**	18	12%
Cheddar cheese	3 slices**	15	10%
Shrimp, pre-cooked	3 ounces	13	9%
Salmon, baked	3 ounces	14	9%
Soy beverage	1 cup	1.5	1%
Almond beverage	1 cup	<1	1%
Non-iodized sea salt	¼ tsp	<1	1%

DAIRY MILK

59% DV

FISH STICKS

39% DV

EGG

17% DV

*The DV for iodine is 150 mcg for healthy adults and children over 4.

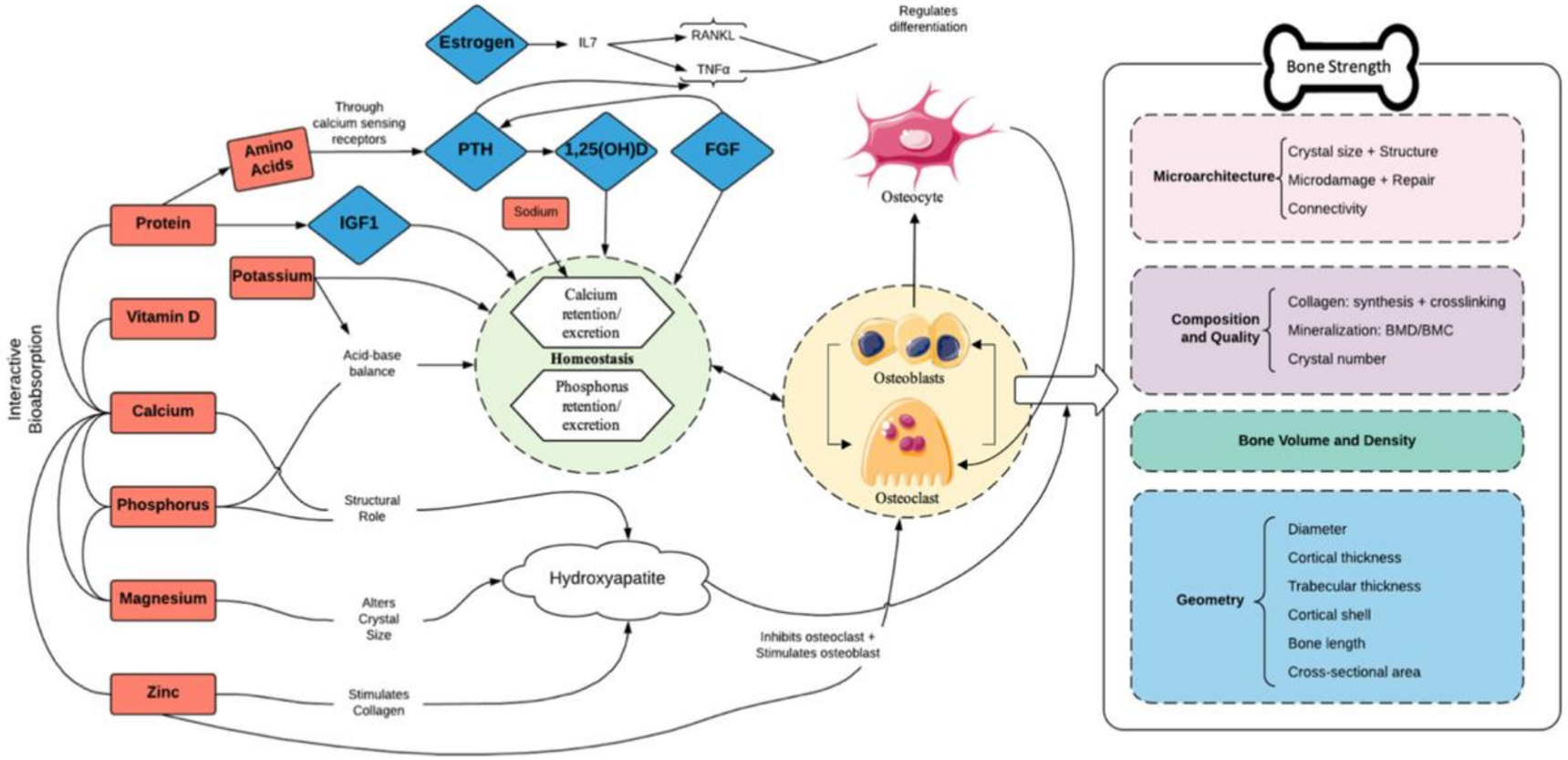
**Cracker sized slice of cheese

USDA, FDA and ODS-NIH *Database for the Iodine Content of Common Foods per serving, Release 2*. January 2022.
National Dairy Council. *The Importance of Iodine in Prenatal Brain Development*. May 2022.

Centers for Disease Control. *Second Nutrition Report Factsheet. Iodine Levels in Young Women Boarder on Insufficiency*. April 2012.

Bone Health

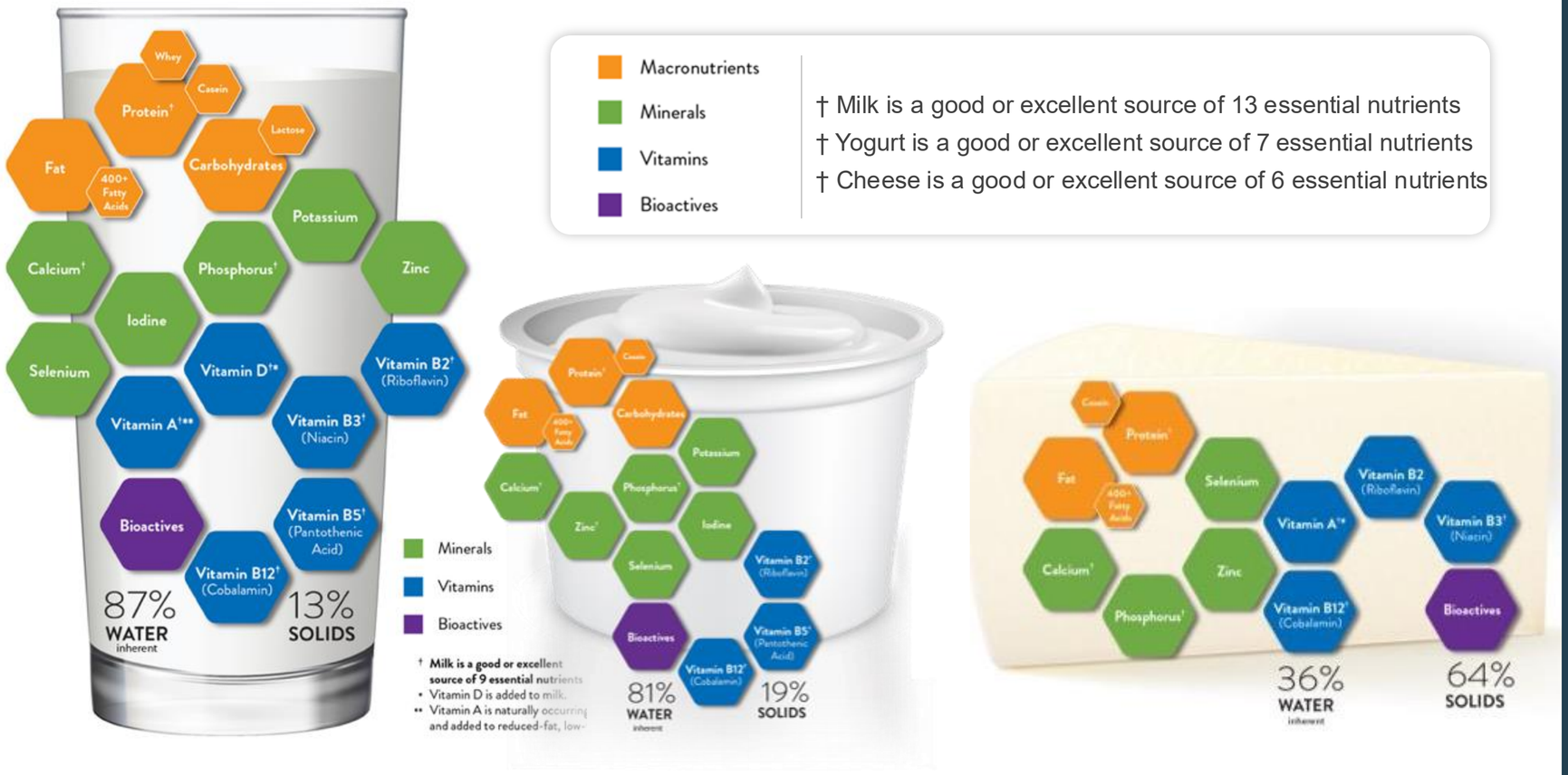
Impact of Dairy Nutrients on Bone Strength



- **Protein** provides the structural matrix of the bone.
- **Calcium** plays a structural role in bone.
- **Vitamin D** is required for calcium absorption.
- **Phosphorus** promotes bone strength and the body's acid base balance.
- **Potassium** promotes an alkaline environment helping to preserve calcium in bones.
- **Zinc** stimulates collagen production, a key component for strong bones.

1. Golden NH, Abrams SA; Committee on Nutrition. *Pediatrics*. 2014 Oct;134(4):e1229-43.
2. Wallace TC, Bailey RL, Lappe J, O'Brien KO, Wang DD, Sahni S, Weaver CM. *Crit Rev Food Sci Nutr*. 2021;61(21):3661-3707.
3. Palacios C. *Crit Rev Food Sci Nutr*. 2006;46(8):621-8.

Immune Health



Macronutrients
Minerals
Vitamins
Bioactives

† Milk is a good or excellent source of 13 essential nutrients
† Yogurt is a good or excellent source of 7 essential nutrients
† Cheese is a good or excellent source of 6 essential nutrients

Immunity-important Nutrients

Protein (Milk, Cheese, Yogurt)

Selenium (Milk)

Zinc (Milk, Yogurt)

Vitamins

- A (Milk, Cheese Fruits, Vegetables)
- B6 (Fruits, Vegetables)
- B12 (Milk, Cheese, Yogurt)
- C (Fruits, Vegetables)
- D (Milk)
- E (Nuts, Seeds)

Milk – Food Data Central: 1077
Greek Yogurt - Food Data Central: 171304
Cheddar Cheese - Food Data Central: 170899

FDA's Daily Value (DV) for potassium of 4700 mg is based on a 2005 DRI recommendation. In 2019, NASEM updated the DRI to 3400 mg. Based on the 2019 DRI, a serving of milk provides 10% of the DRI. FDA rule-making is needed to update this value for the purpose of food labeling.

*Vitamin D is added to milk

**Vitamin A is naturally occurring in whole milk and added to reduced-fat, low-fat and fat-free milks

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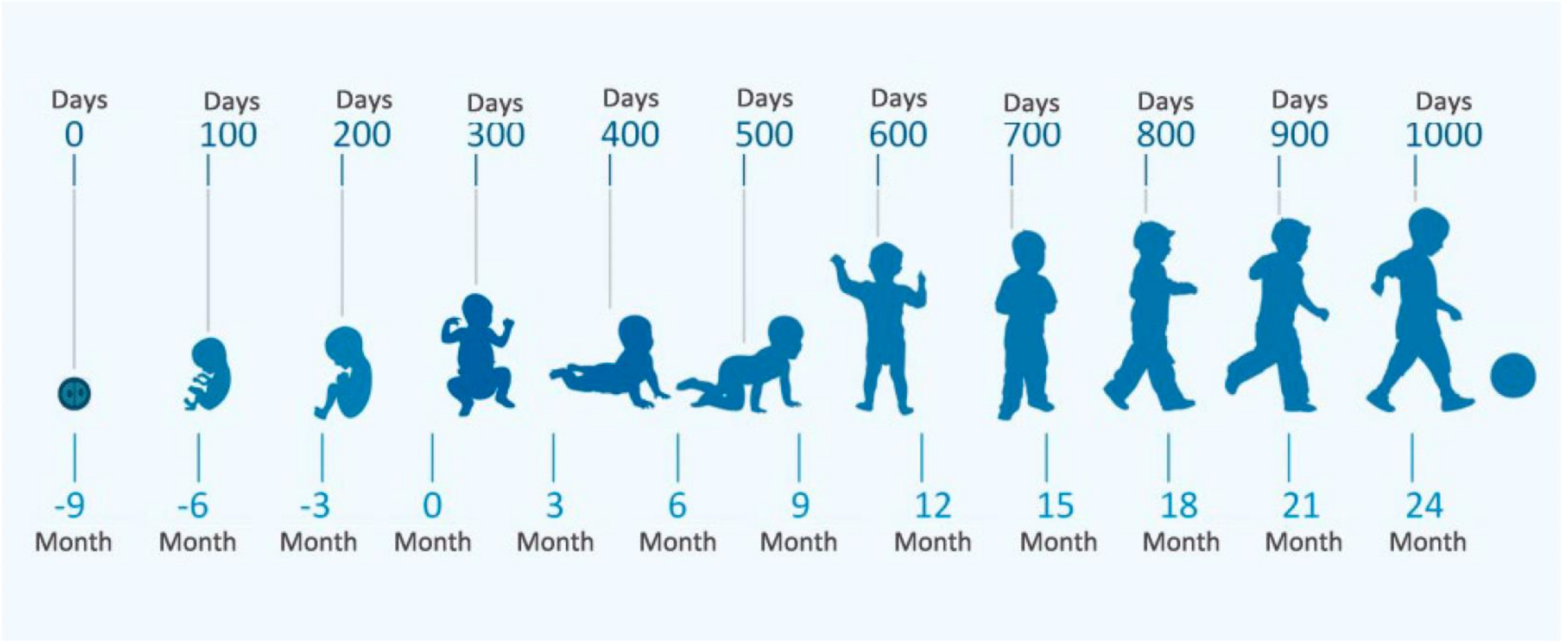
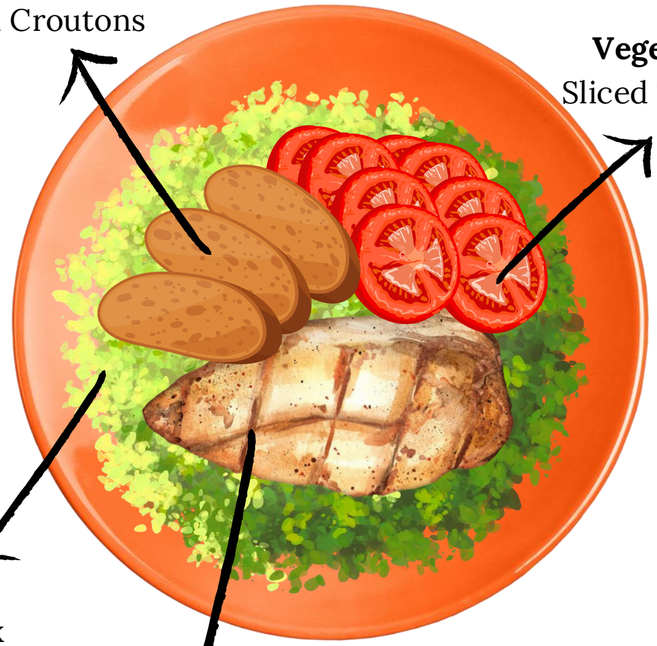
The First 1,000 Days



Strategies for Promoting Healthy Eating Pattern Adoption During Childhood & Adolescence

American
Grilled Chicken Salad

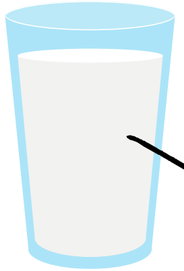


Starch
Whole Grain Croutons

Vegetable
Sliced Tomato

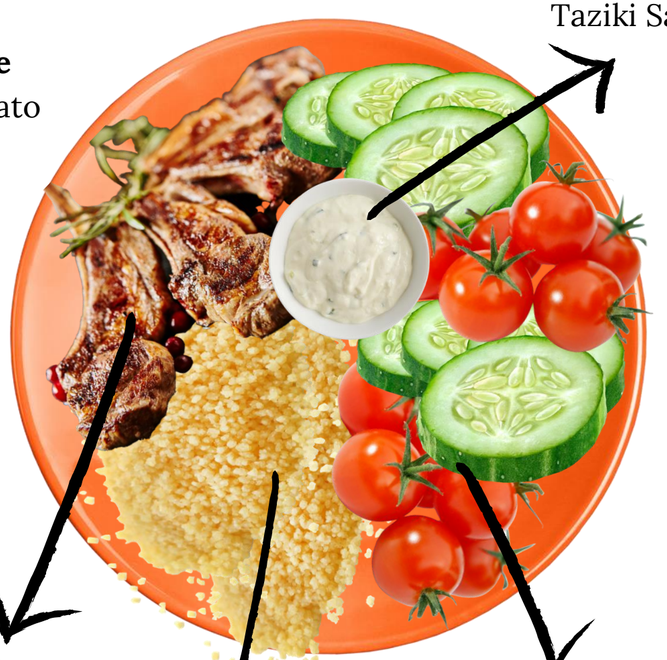
Vegetable
Spring Mix

Protein
Grilled Chicken



Dairy
Lactose Free Milk

Mediterranean
Friday Couscous



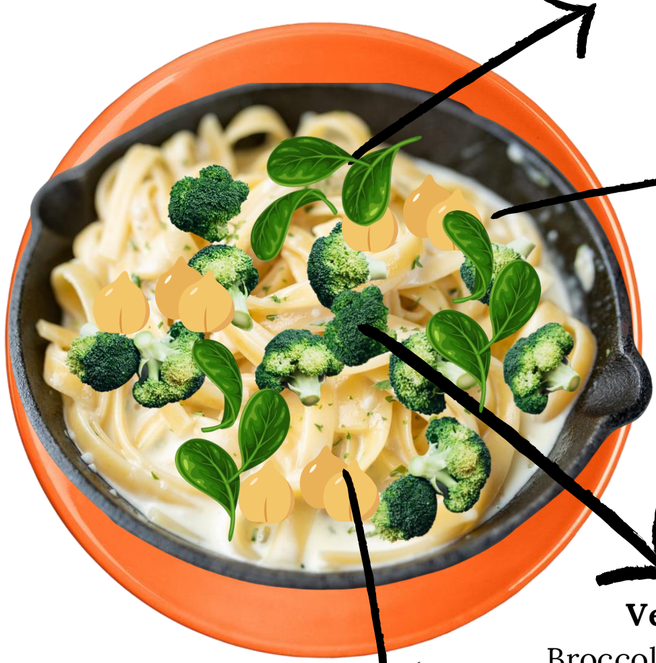
Dairy
Taziki Sauce

Protein
Lamb

Starch
Whole Grain Cous Cous

Vegetables
Tomato Cucumber Salad

Vegetarian
Alfredo



Starch
Whole Grain Linguini

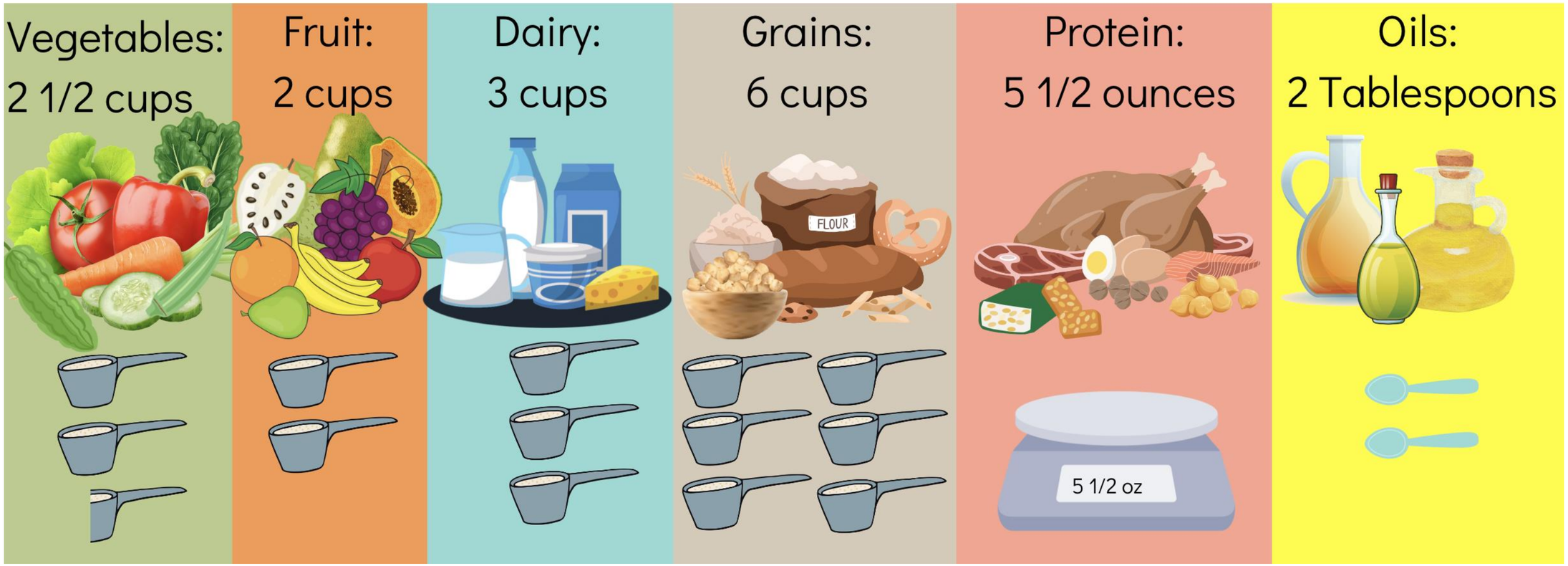
Dairy
Mozzarella

Vegetable
Broccoli and Spinach

Protein
Chickpeas

U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at DietaryGuidelines.gov.

All Food Groups Fit on the Plate



*Dietary Guidelines for 2000 calorie adult diet

Milk & Water: Go-To Beverages for 1- 5 Year Olds

HEALTHY DRINKS.
HEALTHY KIDS.

American Heart Association.

eat right. Academy of Nutrition and Dietetics

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®

AMERICA'S PEDIATRIC DENTISTS
THE BIG AUTHORITY on little teeth

12–24 MONTHS

It's time to add **whole milk**, which has many essential nutrients, along with plain drinking **water** for hydration. A small amount of juice is okay, but make sure it's 100% fruit juice to avoid added sugar. Better yet, serve small pieces of real fruit, which are even healthier.

2–5 YEARS

Milk and **water** are the go-to beverages. Look for milks with less fat than whole milk, like skim (non-fat) or low-fat (1%). If you choose to serve 100% fruit juice, stick to a small amount, and remember adding water can make it go a long way.

See the full guidelines and learn more at
HEALTHYDRINKSHEALTHYKIDS.ORG

Lactose Intolerance: State of the Research

- ~70-75% of Black Americans are lactase non-persistent but not necessarily lactose intolerant.
- People with lactase non-persistence can often consume ~12-25g of lactose (1-2 servings of milk) without symptoms.
- NIH recognizes that dairy avoidance due to self-diagnosis of lactose intolerance is a public health problem.

Unnecessary dairy avoidance is a critical issue for the health and well-being of Black Americans since most of this population are chronically under-consuming multiple nutrients of public health concern that are most prominently found in dairy foods.

Good News!

There are a variety of lactose-free milks and lactose-free and low-lactose dairy foods available

Byers KG, Savaiano DA. The myth of increased lactose intolerance in African-Americans. J Am Coll Nutr. 2005;24(6 Suppl):569S-573S.
Lukito W, Malik SG, Surono IS, Wahlqvist ML. From 'lactose intolerance' to 'lactose nutrition'. Asia Pac J Clin Nutr. 2015;24 Suppl 1:S1-8.
Brown-Riggs C. Nutrition and Health Disparities: The Role of Dairy in Improving Minority Health Outcomes. Int J Environ Res Public Health. 2015;13(1):ijerph13010028.

Lactose Intolerance Treatment & Management Options

- Lactose-free dairy
- Fermented dairy
- Small doses and/or with a meal
- Probiotic supplements
- Lactase
- Increased/maintained consumption to improve tolerance

Enjoy Dairy Foods with Confidence

Everyone tolerates lactose differently. The good news is there are a variety of lactose-free and lower-lactose choices that deliver on taste and nutrition.

Lactose-free Dairy Milk

1 CUP (8 OZ) SERVING

Lactose-free dairy milk is real milk, just without lactose.

0g

Natural Cheeses

1.5 OZ SERVING

Due to the steps in cheese making and natural aging, natural cheese contains minimal amounts of lactose. Natural cheeses like Cheddar and mozzarella have less than 1 gram of lactose.

<1g

Ricotta Cheese

1/4 CUP SERVING

This soft, natural cheese contains minimal amounts of lactose.

1.9g

Ice Cream

2/3 CUP SERVING

There are lactose-free dairy milk ice creams available.

3.9g

Yogurt

3/4 CUP SERVING

The live cultures in yogurt help digest some of the lactose.

5.7g

Buttermilk

1 CUP (8 OZ) SERVING

Due to the steps in making buttermilk and its acidity, it naturally contains less lactose than regular milk.

9g

Amount of Lactose per Serving
From Lowest to Highest

0g <1g <1g 1.2g 1.9g 3.2g 3.9g 4.2g 5.7g 8.5g 9g 12.6g

Butter

1 TBSP SERVING

Butter is made by separating milk from butter fat, so there are only trace amounts of lactose, if any.

<1g

American Cheese

1 SLICE SERVING

American cheese is made from natural cheese, which contains minimal lactose.

1.2g

Cottage Cheese

1/2 CUP SERVING

Due to the steps in cheese making and curd separation, cottage cheese has a fraction of the lactose in milk. Lactose-free options are also available.

3.2g

Greek Yogurt

3/4 CUP SERVING

There is less lactose in Greek yogurt because the straining process removes some of the lactose.

4.2g

Kefir

1 CUP (8 OZ) SERVING

The live cultures in fermented milk products help digest some of the lactose.

8.5g

Dairy Milk

1 CUP (8 OZ) SERVING

Try small amounts of dairy milk in smoothies, on cereal or with meals. Having milk with solid foods helps slow digestion, which can mean it's better tolerated.

12.6g

1 Lactose content based on the Reference Amount Customarily Consumed (RACC) and data from FoodData Central: https://fdc.nal.usda.gov/. Accessed October 2022. Ricotta lactose content based on Facioni MS et al. 2020, Di Costanzo M et al. 2020 and Food Standards Australia New Zealand. Detailed data is on file and available upon request.

NDC NATIONAL DAIRY COUNCIL

Culturally Inclusive Dietetics

- Many of our patients of color face disparity when seeking nutrition support.
- Patients report:
  - Nutrition advice provided too quickly during medical appointments
  - Poor health literacy (terms patients don't comprehend)
  - Nutrition advice that doesn't suit their lifestyle
    - (taste, cost, other determinants of health)
  - Unsustainable recommendations (too restrictive)
  - Being told not to eat their cultural foods
  - Challenges navigating fad diets and nutrition misinformation

Nutrition Case Studies

Destiny

Nutrition Recommendations

Education on:

1. Evidence-based weight management
2. Harms of restrictive fad diets
3. Balanced Eating for Destiny
4. Plate Method
5. Navigating food labels (health claims, nutrition facts labels, ingredient lists)
6. Food sources and supplementation of calcium, vitamin D, B12, Iron, Zinc (nutrients children are often deficient in at this stage)

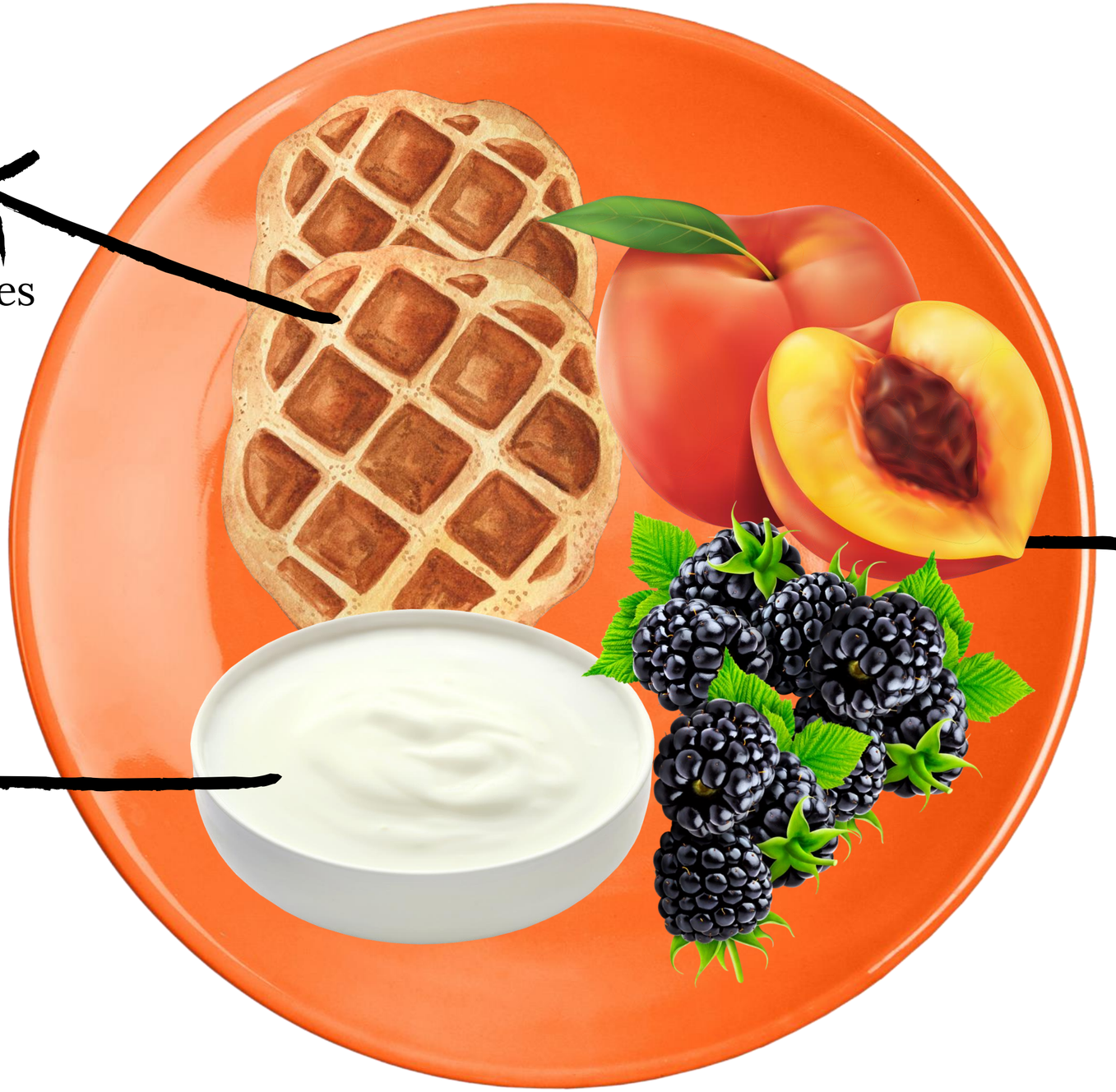
Nutrition Recommendations

1. 1,600 calories per day with low physical activity
2. Up to 2,000 calories per day with physical activity
3. Inclusion of foods rich in calcium, vitamin D, B12, iron, zinc
4. Exposure to sunlight for vitamin D (supplementation during the winter months due to melanin)
5. Increase unsweetened fluids (water, sparkling water, milk, unsweetened tea)
6. Reduce sugar-sweetened beverage and juice intake
7. Encourage fiber intake through whole fruit, vegetables, whole grains, and legumes

Food and Nutrition Board, IOM

Starch

Whole wheat waffles made with eggs



Non Starchy Fruit or Vegetable

Local Peach and Blackberries

Dairy

2% Greek Yogurt

3 Ways a Retail Dietitian can Provide Support

1. Ask about the foods currently available to the patient without judgement. This is important to know prior to making recommendations.
2. Highlight pediatric needs for proper nutrition and the positive effects it has on development and the importance of weight maintenance in this age group in comparison to weight loss.
3. Provide education to Destiny and her mom on navigating nutrition facts labels.

Adam

Nutrition Recommendations

Education on:

1. Diabetes pathology
2. Diabetic plate method
3. Food groups, purpose, and function
4. Nutrition Facts Label
5. Navigating packaged foods and labels
6. Importance of BP management
7. Foods to limit

Nutrition Recommendations

1. Maintain CHO intake at 45%-50% of total calories
2. Maintain PRO intake at 20% of total calories
3. Plant fats 30%-35% total calories
4. Ensure Pt understands the effects of DM
5. Assess Pt's stage of change
6. Increase sun exposure or utilize Vitamin D supplement
7. Increase unsweetened beverages (Water, Milk, Sparkling Water, Unsweetened Iced Tea)
8. Increase physical activity
9. Identify stress relief activities

Nutrition and Diagnosis Related Care
Pediatric Nutrition in Clinical Care

Protein and Dairy

Grilled Shrimp
Shredded Cheese

Non Starchy Fruit or Vegetable

Fresh Salsa
Fresh Guacamole
Onions
Peppers

Starch
Whole Wheat Tortilla

3 Ways a Retail Dietitian can Provide Support

1. Provide verbal education and handouts on how to organize foods into carbohydrates, protein, and non starchy produce.
2. Show Adam how he can find carbohydrate, protein, and fiber content on the nutrition facts label.
3. Explain the difference between added sugar and total sugar on the nutrition facts label and in examples of foods.

Omar

Nutrition Recommendations

Education on:

1. The effects of autism on food experience and diet.
2. Nutrient needs of Pt.
    a. 1,400-1,600 kcals per day, 19 g pro per day
3. Education on low lactose foods to reduce risk of nutrient deficiency
4. Education on nutrient dense foods to support poor PO days
5. Food Chaining
6. Inflammation
7. Food contaminants (mercury)
8. Sources of Pre and Probiotics

Food and Nutrition Board, IOM

Nutrition Recommendations

1. Evaluate pica.
2. Offer foods the patient finds acceptable.
3. Enhance meals with the texture the patient prefers.
4. Incorporate foods rich in calcium and folate.
    a. Including dairy and grains (these are often restricted unnecessarily).
5. Assess the patient for low weight (readjust kilocalories if needed).
6. Promote foods rich in omega-3 fatty acids to support brain health and development.
7. Assess the child for disaccharide deficiency, avoid high fructose corn syrup.
8. Assess effects of medication on weight and appetite.
9. Assess the need for folinic acid, betaine, and methyl cobalamin to support metabolic balance and treat cerebral folate deficiency.

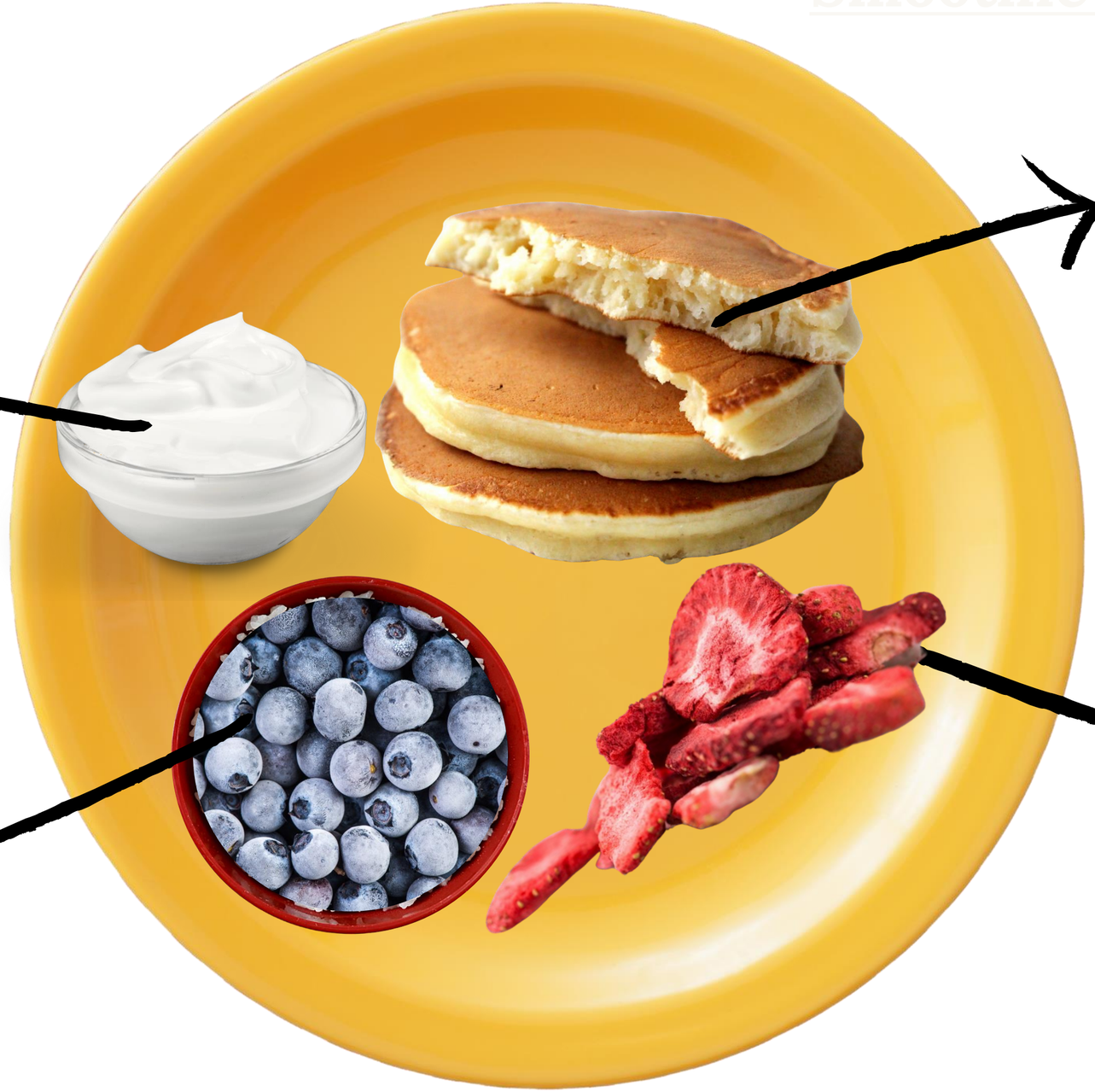
Smoothie Components

Dairy

Greek Yogurt

Starch, Protein, Dairy

Pancakes fortified with dairy based protein supplement



Fruit

Frozen Blueberries

Fruit

Freeze dried strawberries

3 Ways a Retail Dietitian can Provide Support

1. Ask what textures and flavors the Pt currently enjoys and consider any nutrient dense foods or food products that may meet his preferences.
2. Define and highlight the importance of nutrient-dense ingredients that can be utilized to fortify foods during periods of poor appetite to prevent weight loss.
3. Highlight foods that provide probiotics and prebiotics to support gut health .

Key Messaging for Shoppers

Many Patients believe that eating less is a win and don’t eat enough balanced meals or snacks.... Patients then get hungry and consume foods that don't support their health goals.

1. Encourage patients to eat enough balanced meals and snacks to prevent over hunger and food choices that don't support health goals.
2. Inform patients that they do not have to give up cultural foods to meet their health goals.
3. Advise patients to call their health insurance provider to find an in network registered dietitian when possible.

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Professionally Trained Chef

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