

# Dairy Every Day Is a Healthy Way to Nourish Brains, Bones, and Bodies

BACKGROUND



The first 1,000 days between pregnancy and a child's second birthday are a brief but important window of opportunity to nourish early brain development, help children learn to like healthy foods and set the stage for a lifetime of wellness. As they move through toddler and preschool years, it is imperative to solidify these healthy habits.

Dairy foods can be a nutrition solution for many families. Dollar for dollar, dairy foods are one of the most economical sources of nutrition, which is critical to help meet the nutritional needs of those disproportionately affected by food insecurity and chronic disease. In addition, they come in several textures and varieties, including lactose-free, to meet multiple taste, cultural and health needs. There's likely something even picky eaters will enjoy.

This guide provides evidenced-based background on how dairy foods help nourish brains, bones and bodies.

BRAIN HEALTH

STRONG BONES

IMMUNE HEALTH

GROWTH

**Note:** Individuals are encouraged to obtain personalized health and medical advice from their pediatrician.

# Brain Health

Every parent wants to give their child the best head start possible to reach their full potential. Good nutrition during pregnancy and early childhood provides the building blocks for a child's cognitive abilities, motor skills and socio-emotional development, which in turn impacts their future success in school and economic opportunities later in life.<sup>1</sup>

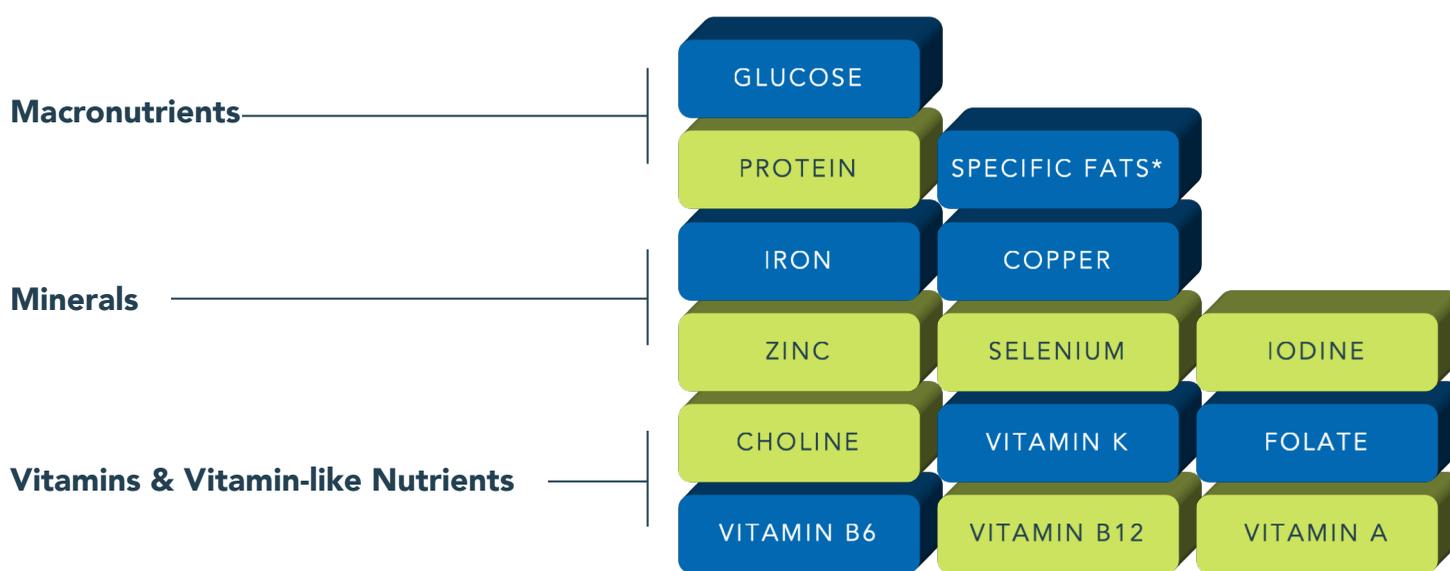
During the first 1,000 days, the brain grows more quickly than at any other time in a person's life. Children need the right nutrients at the right time to fuel the brain's rapid development. Failure to provide key nutrients during this critical period can have lifelong impact on intellectual ability and neurodevelopment.

In its Policy Statement on Advocacy for Improving Nutrition in the First 1000 Days to Support Childhood Development and Adult Health, the American Academy of Pediatrics recognized 14 nutrients that affect early brain development.<sup>2</sup> Dairy foods are a brain health powerhouse, providing 7 of the 14 nutrients important for early brain development.

## 14 BUILDING BLOCKS FOR EARLY BRAIN DEVELOPMENT

**Dairy foods are a brain health powerhouse, providing 7 of the 14 nutrients important for early brain development.**

Nutrients provided by dairy foods



\* Long-chain polyunsaturated fatty acids

# Brain Health

What pregnant and breastfeeding moms eat matters too. According to the 2020–2025 Dietary Guidelines for Americans, women who do not regularly consume dairy products, eggs, seafood, or use iodized table salt may not consume enough iodine—which is essential for neurocognitive development of the fetus.<sup>3</sup>

## KEY POINTS FOR FAMILIES



Dairy every day is a healthy way to benefit brain health.



Dairy foods are a brain health powerhouse, providing 7 of the 14 nutrients important for early brain development.



Help nourish baby's brain development with the iodine and other important nutrients found in dairy foods.

## RESEARCH AND RESOURCES

POLICY STATEMENT Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

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

**Advocacy for Improving Nutrition in the First 1000 Days To Support Childhood Development and Adult Health**

Michael K. Georgieff, MD, FAAP, COMMITTEE ON NUTRITION

### AAP Policy Statement.

Advocacy for Improving Nutrition in the First 1000 Days to Support Childhood Development and Adult Health.

COMPLIMENTARY WEBINAR | TUESDAY, JUNE 14 | 12:00 PM CST

**PRENATAL NUTRITION:**  
*Dairy's Building Blocks for Baby's Brain Development*

**NDC**  
NATIONAL DAIRY COUNCIL™

### Continuing Education Webinar.

Prenatal Nutrition. Dairy's Building Blocks for Baby's Brain Development. 1 unit through CDR.

# Strong Bones and Muscles

Bones are the framework for a child's growing body. And the connection between bone health and muscle health cannot be overlooked, as musculoskeletal health is critical for all aspects of life. The American Academy of Pediatrics' Clinical Report on Optimizing Bone Health in Children and Adolescents acknowledges bone health attained in early childhood is the most modifiable determinant of lifelong skeletal health.<sup>4</sup>

The health habits children build early in life can make or literally break their bones as they age. The more bone mass created during childhood and adolescence, the greater the chance of preventing osteoporosis and related injuries later in life. The good news is dairy foods provide more bone-building nutrients than any other food group. The American Academy of Pediatrics, National Institutes of Health and 2020–2025 Dietary Guidelines for Americans recommend eating dairy foods daily to achieve peak bone mass.

## Dairy's bone building nutrients:<sup>5</sup>

### 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.

## KEY POINTS FOR FAMILIES



Building your child's "bone bank" is like saving for their education. Investing in good nutrition now, will pay off with stronger bones in the future.



Dairy foods provide more bone-building nutrients than any other food group.



Bones crave the nutrients found in milk, cheese and yogurt.

## RESEARCH AND RESOURCES

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

FROM THE AMERICAN ACADEMY OF PEDIATRICS  
Guidance for the Clinician in Rendering Pediatric Care

CLINICAL REPORT  
Optimizing Bone Health in Children and Adolescents

Neville H. Golden, MD, Steven A. Abrams, MD, and  
COMMITTEE ON NUTRITION | abstract

**AAP Clinical Report.**  
Optimizing Bone Health in Children and Adolescents.

COMPLIMENTARY WEBINAR | MARCH 31 | 12:00-1:30PM CST

NUTRITION AND BONE HEALTH ACROSS THE LIFESPAN

NDC

**Continuing Education Webinar.**  
Nutrition and Bone Health Across the Lifespan. 1 unit through CDR.

# Immune Health

Healthy immune systems are top of mind for parents and health professionals. Smart habits to help immune health include getting enough sleep, regular exercise, managing stress and eating a healthy diet.

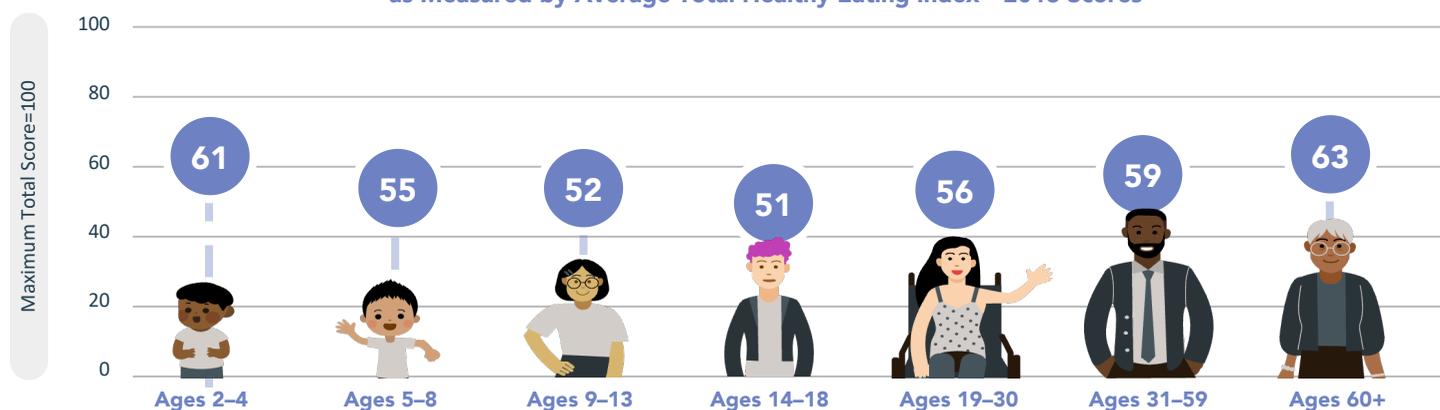
Immune cells require a constant supply of energy and nutrients as they are defending and protecting the body. Nutrients from a variety of foods, including dairy foods, fruits and vegetables, help keep our immune system in check.

## Summary of Action of Micronutrients on Immune Function<sup>6</sup>

Epithelial Barriers	Cellular Immunity	Antibody Production
Vitamin A	Vitamin A	Vitamin A
Vitamin C	Vitamin B6	Vitamin B6
Vitamin E	Vitamin B12	Vitamin B12
Zinc	Vitamin C	Vitamin D
	Vitamin D	Vitamin E
	Folic acid	Zinc
	Iron	Copper
	Zinc	Selenium
	Copper	Nucleotides
	Selenium	Long chain polyunsaturated fatty acids
	Nucleotides	
	Long chain polyunsaturated fatty acids	

Unfortunately, as noted in the 2020–2025 Dietary Guidelines for Americans, children’s diet quality becomes sub-optimal at an early age, with a Healthy Eating Index Score of 61 out of 100. This is especially concerning for Non-Hispanic Black children and Hispanic children because they miss the mark on meeting nutrition recommendations more than their peers.<sup>7</sup>

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



**Note:** HEI-2015 total scores are out of 100 possible points. A score of 100 indicates that recommendations on average were met or exceeded. A higher total score indicates a higher quality diet.

**Data Source:** Analysis of What We Eat in America, NHANES 2015–2016, age 2 and older, day 1 dietary intake data, weighted.

# Immune Health

Meeting daily dairy recommendations can help nourish the immune system with these immune-important nutrients:

## PROTEIN

Is the building block of all cells in the body, including immune cells and immune signaling molecules.<sup>8</sup>

## ZINC

Is important for normal immune function and supports normal growth and development.<sup>9</sup>

## SELENIUM

Helps protect healthy cells from damage.<sup>10</sup>

## VITAMIN A

Helps support healthy immune cells.<sup>11</sup>

## VITAMIN D

Helps maintain a healthy immune system.<sup>12</sup>

## VITAMIN B12

Helps support immune cell function and activity.<sup>13-14</sup>

## KEY POINTS FOR FAMILIES



Dairy every day is a healthy way to benefit immunity.



Dairy foods provide nutrients, as part of a healthy diet, important for immune health.



Nourish your child's immune system with the nutrients in dairy foods.

## RESEARCH AND RESOURCES




*Review*  
**Strengthening the Immune System and Reducing Inflammation and Oxidative Stress through Diet and Nutrition: Considerations during the COVID-19 Crisis**

ex Brito <sup>1,2,†</sup>, Giulia Dingee <sup>3</sup>, Sofia Sosa Fernandez Del Campo <sup>1</sup>, I.R. La Frano <sup>1,3,†</sup> and Torsten Bohn <sup>1,4,†</sup>



### Nutrients Review.

Strengthening the Immune System and Reducing Inflammation and Oxidative Stress through Diet and Nutrition: Considerations during the COVID-19 Crisis.

COMPLIMENTARY WEBINAR | TUESDAY, AUGUST 24 | 12:00 PM CST

**TAMING THE FLAME:**  
*Dairy and Inflammation*




### Continuing Education Webinar.

Taming the Flame. Dairy and Inflammation. 1 unit through CDR.

## Growth and Development



Early childhood is a critical period for growth and development, which require the right balance of nutrients, including high-quality protein, while keeping weight gain on the right track.

At around six months of age, as nutrient-dense complementary foods are introduced, cheese and yogurt are easy ways to familiarize babies to new tastes and textures.

After baby's first birthday, as they transition from breast milk or iron-fortified formula, whole milk and other dairy foods emerge as sources of calories, high-quality protein and other nutrients to build healthy brains, bones, bodies and immune systems. This nutrient bundle makes dairy foods an easy safety net for picky eaters.



60¢

Dollar for dollar dairy foods are one of the most economical sources of nutrition.<sup>15-16</sup>

In fact, three servings of milk can cost as little as \$0.60 a day.<sup>17</sup>

# Growth and Development

Research shows that what children drink—from birth through age 5—can have a big impact on their health. Experts at the American Academy of Pediatrics, the Academy of Nutrition and Dietetics, the American Academy of Pediatric Dentistry and the American Heart Association recommend cow's milk and water as the go-to beverages for children 1–5 years of age.<sup>18</sup> Plant-based alternatives are not recommended due to their wide variability in nutrient content, limited evidence of bioavailability and impact on diet quality and health outcomes. The exception would be unsweetened, fortified soy milk if a child is allergic to dairy milk or to accommodate vegan or certain vegetarian dietary preferences.

## HOW MUCH DAIRY<sup>19</sup>



### 6–12 months

Introduce yogurt and cheese



### 1–2 years

Aim for 1⅔–2 cups a day



### 2–3 years

Aim for 2–2½ cups a day



### 4–8 years

Aim for 2½ cups a day



### 9+ years

Aim for 3 cups a day

## KEY POINTS FOR FAMILIES



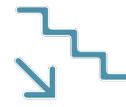
Dairy every day is a healthy way to support growth and development.



Milk and water are the go-to drinks for 1–5 year-olds. Milk for nutrition and water for hydration.



Milk at meals provides a safety net for picky eaters.



When you step away from dairy foods you step down nutrition.

## RESEARCH AND RESOURCES

CONSENSUS STATEMENT

**Healthy Beverage Consumption in Early Childhood**

Recommendations from Key National Health and Nutrition Organizations

**Healthy Eating Research**



**Consensus Statement.**  
Healthy Beverage Consumption in Early Childhood.

COMPLIMENTARY WEBINAR | DECEMBER 10 | 12:00-1:00 PM CDT

**CONFIDENTLY NOURISHING CHILDREN: WHAT'S THE DEAL WITH DAIRY?**





**Continuing Education Webinar.**  
Confidently Nourishing Children: What's the Deal with Dairy. 1 unit through CDR.

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