

WEBINAR SERIES

Reminders for today's webinar:

- Please test your computer by using the link provided in the chat window to ensure that you can hear the speakers via streaming audio
- We recommend the latest version of **Google Chrome or Firefox** to minimize the chance of system issues during the live webinar
- A copy of the slides are available via a link in the reminder email sent yesterday
- · Continuing education certificates and handouts will be emailed within 24 hours

#DairyNourishesLife

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Webinar Reminders

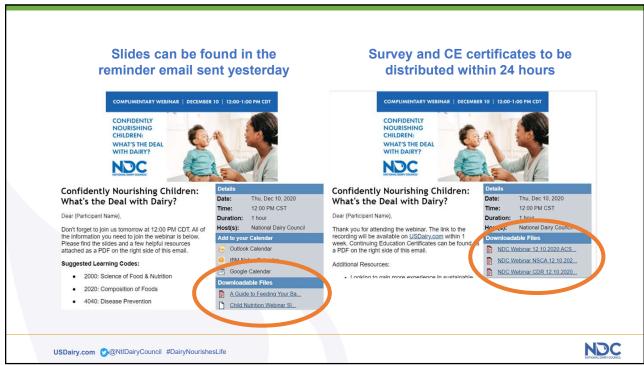
During the webinar

- Preferred browsers for optimal viewing and audio: Google Chrome or Firefox
- · Please type questions into the chat window
- Follow along with #DairyNourishesLife

After the webinar

- Continuing education certificates and resources will be emailed within 24 hours
- Webinar recording will be available next week on www.USDairy.com





Confidently Nourishing Children

What's the Deal with Dairy?

Parents agree that eating habits during Parents agree that eating habits during childhood will have **lifelong impacts** on their child's health

34%

Are **confident** they are doing a good job shaping their children's eating habits

Top Challenges to Healthy Eating

- 1. Cost
- 2. Convenience
- 3. Food Preferences



CS Mott's Children's Hospital. National Poll on Children's Health. 2017



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Today's Speakers



Winston Price, MD, FAAP, FACPE Board-certified Pediatrician Past-President, National Medical Association CIO, Cobb Institute



Holley Grainger, MS, RD Founder of Cleverful Living NDC Ambassador

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Sally Cummins, MS, RDN, LDN Vice President, Sustainable Nutrition Affairs **National Dairy Council**

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Why Dairy Is Important From The Start?

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Childhood: A Critical Window of Opportunity

- √ Establish taste preferences
- ✓ Support optimal growth and development
- ✓ Establish healthy dietary patterns
- ✓ Reduced risk of diet-related chronic disease



Healthy Eating Research. Technical Report. Sept. 2019.

Yogurt and Cheese as Complementary Foods Learning to like healthy foods



a crucial window of time for the rapidly developing infant and toddler to learn to accept and like healthy foods and establish long-term dietary patterns that can prevent the onset of obesity, chronic diseases, and oral health problems."

Introduction of Dairy Foods in the First 12 Months

6 Months 0-6 Months 12 Months Breast milk* Yogurt Cheese Whole Milk or iron-fortified (Plain, Whole-fat, (Pasteurized) Whole-fat Greek) formula, exclusively

> Lumpy, Soft, Solid Creamy & Sour

Mild, Sharp, Tangy

AAP/NDC: Guide to Feeding Your Baby for the First Two Years. 2020 Dietary Guidelines Committee's Scientific Report. Healthy Eating Research. Feeding Guidelines. 2013.

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Whole Milk From 1-2 Years Fueling Growth and Brain Development

- Conception through 3 years = Explosive rate of:
 - Linear growth
 - · Tissue development
 - Brain expansion (50% of daily calories)
- · After 1st birthday whole milk as well as yogurt and cheese is recommended as concentrated sources of calories and nutrients to fuel growth and development.

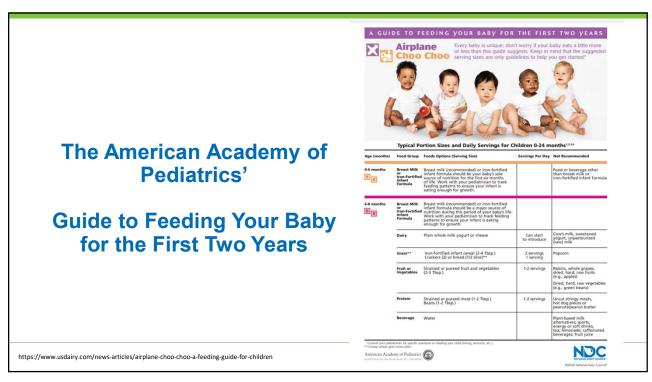
*recommended

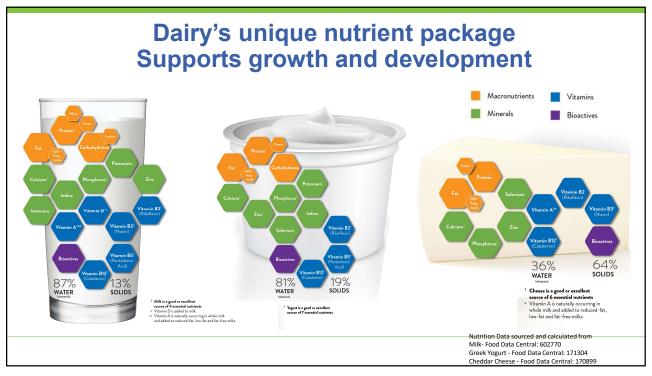
Dairy Recommendations for 12-24 Months* 4-5 servings/day			
Dairy Food	Serving Size		
Plain whole milk	½ cup		
Yogurt	½ cup		
Cheese	½ ounce		

*Not recommended: non-fat and flavored milk, unpasteurized (raw) milk

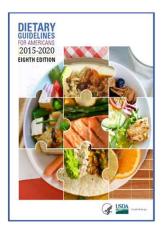


Nutrition Data sourced and calculated from FoodData Central: 602770





Forming Healthy Eating Habits Early Has Long-term Benefits



The 2015 DGA states that healthy eating patterns, including low-fat or fat-free dairy foods, are associated with reduced risk for several chronic diseases, including cardiovascular disease (strong evidence) and type 2 diabetes (moderate evidence). Research has also linked dairy intake to improved bone health, especially in children and adolescents.

* 3 servings for Americans 9 years and older in the Healthy U.S.-Style and Healthy Vegetarian Eating Patterns

Dietary Guidelines for Americans. 2015-2020,

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Dairy Foods: Preventative Tool to Support Bone Health Across the Lifespan

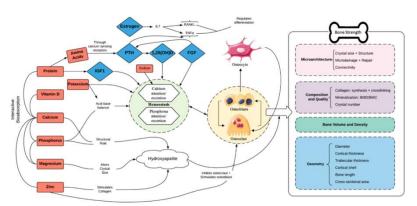


Figure 1. Impact of dairy nutrients on bone strength. 1,25(OH)D = 1,25 dihydroxy vitamin D; FGF = fibroblast growth factor; IGF1 = insulin-like growth factor 1; IL7 = interlukin-7; PTH = parathyroid hormone; RANKL; $TNF\alpha$ = tumor necrosis factor alpha.

- Bone mass is influenced by dietary patterns in childhood and adolescence¹
- Peak bone mineral accretion¹
 - Girls: ~12.5 years (on avg)
 - Boys: ~ 14 years (on avg)
- Dairy foods provide more bone-beneficial nutrients per calorie than any other food group²
 - Protein
 - · Vitamin D
 - CalciumPotassium
 - Phosphorus
 - Magnesium
 - Zinc
- American Academy of Pediatrics. Clinical Report: Optimizing Bone Health in Children and Adolescents.
 Wallace, T, et al. Critical Reviews in Food Science and Nutrition. 2020.







HEALTHY KIDS. Academy of Nutrition and Dietetics







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.



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

See the full guidelines and learn more at HEALTHYDRINKSHEALTHYKIDS.ORG

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Dollar for dollar, dairy foods are one of the most economical sources of nutrition



Per serving*

Least Expensive Sources of the Nutrients of Public Health Concern

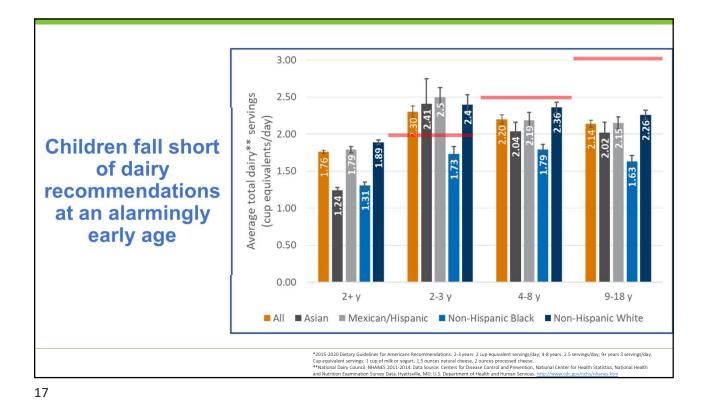
Children	2-	18	Years

4 <i>dults</i>	19-99	Years	Old

CALCIUM 1 Cheese & milk (dairy) (tie) 2 Orange juice VITAMIIN D	CALCIUM 1 Milk (dairy) 2 Cheese 3 Orange juice VITAMIN D
1 Milk (dairy) 2 Eggs 3 Fortified cereals	1 Milk (dairy) 2 Eggs 3 Soy Milk
POTASSIUM 1 Potatoes & sweet potatoes 2 Juice 3 Milk (dairy)	POTASSIUM 1 Potatoes & yams 2 Juice 3 Milk (dairy)
FIBER 1 Quinoa 2 Chickpeas 3 Pearled barley	FIBER 1 Quinoa 2 Chickpeas 3 Pearled barley

*Based on U.S. average price of unflavored, private label milk, 1 gal. [Source: IRI Total US - Multi Outlet + Conv 2020, YTD ending 10-4-20]

USDA FoodData Central (FDC ID: 602770) Drewnowski, A. J Am Coll Nutr. 2011. Hess, JM. Nutr J. 2019.



Understanding the Gap Between Recommendations and Consumption ☐ Risk for food insecurity ✓ Within the past 12 months we worried whether our food would run out before we got money to buy more Rate of Household Food Insecurity by Race/Ethnicity ✓ Within the past 12 months the food Respondents All respondents with children by race/ethnicity: we bought just didn't last and we with children: White Black Hispanic Asian didn't have money to get more. ☐ Lactose intolerance or milk allergy 29.3% 37.7% 36.0% 25.4% 24.3% ☐ Habits at home What does your child drink at meals? What kind of milk, cheese or yogurt (May-5- July 21, 2020) do you buy? What dairy foods do you enjoy? (Role modeling) Feeding America, "The Impact of Coronavirus on Food Insecurity," June 3, 2020.

Asthma? Allergies? Lactose Intolerance?

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What's the Difference Between Milk Allergy and Lactose Intolerance?

	Milk Allergy	Lactose Intolerance
Prevalence	More common in children 0 to 3 years old (2.5%); 80% outgrow by 16 years	Rare in young children
Mechanism	Reaction to milk protein (i.e., casein)	Intolerance to milk sugar (lactose)
Symptoms May Include	Mild or severe symptoms involving skin, mouth, lungs, heart, gut and brain	Abdominal pain, flatulence, bloating and/or diarrhea
System Impacted	Response triggered by the immune system	Gastrointestinal (GI) response from an inadequate supply of lactase enzyme, which breaks down lactose
Management	Individuals should <u>avoid</u> milk and milk products (unless allergy is outgrown)	Find management strategies that work for them

Allergy and Asthma Foundation
NIH Consensus Development: Lactose intolerance and health. 2010.
National Medical Association Consensus Statement. 2013.

	Dairy Food	Serving Size	Lactose (g)*	Did You Know?
	Low-fat and fat free milk	8 oz	12g	Try small amounts of milk in smoothies, on cereal or with meals. Having milk with solid foods helps slow digestion which can mean better tolerance
	Lactose-free cow's milk	8 oz	0g	Lactose-free cow's milk is real milk – just without the lactose
	Ultra-filtered milk	8 oz	0g**	Most ultra-filtered milks have lactase enzyme to lower the lactose. Double check with the manufacturer.
A Look at Lactose in Dairy Foods	Fat-free plain Greek Yogurt	1 cup	6.5g	There is less lactose in Greek yogurt because the straining process removes some of the lactose
	Mozzarella Cheese	1.5 oz.	0.3g	Due to the steps in cheese making and natural aging, natural cheese contains minimal amounts of lactose
	Cheddar Cheese***	1.5 oz	<1g	Processing milk to make cheese lowers the lactose content
	Processed American Cheese	2 oz	1.4g	American cheese, which is made from natural cheese, does not contain much lactose
	Ricotta Cheese	½ C	<1-6g	Ricotta cheese - a soft, natural cheese can contain minimal amounts of lactose
	Ice Cream	½ C	14g	There are lactose-free cow's ice creams available
	Cream	1 Tbsp	<1g	Cream for coffee has minimal lactose

Solutions for People with Lactose Intolerance Test and tailor to find for what works for them

STIR IT

Mix milk with other foods to

TRY IT

Opt for lactose-free cow's milk products



SLICE IT

Choose natural cheeses (e.g. Cheddar, Swiss)



SIP IT

Start small and introduce dairy slowly



SHRED IT

Add natural cheeses to foods (e.g. Parmesan)



SPOON IT

Yogurt's live and active cultures help digest lactose



National Medical Association Consensus Statement. 2013.

Helpful Reminders

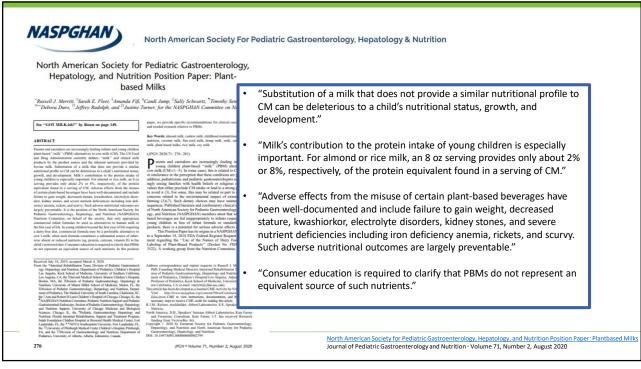
- Lactose intolerance is an individualized condition
- An expert panel found most people who have trouble digesting lactose can tolerate

 ~12grams at one time (that's as much as a cup of milk)
 - Start slowly with regular milk in cereal or a small amount at meals and build tolerance level back up
 - Lactose-free milk is real cow's milk. It provides the same 9 nutrients, just without the lactose
 - Most hard, natural cheese contain minimal lactose
 - Yogurt's live and active cultures help digest lactose (and Greek and Icelandic yogurt have less lactose due to the straining process
 - Butter and cream have trace to no lactose

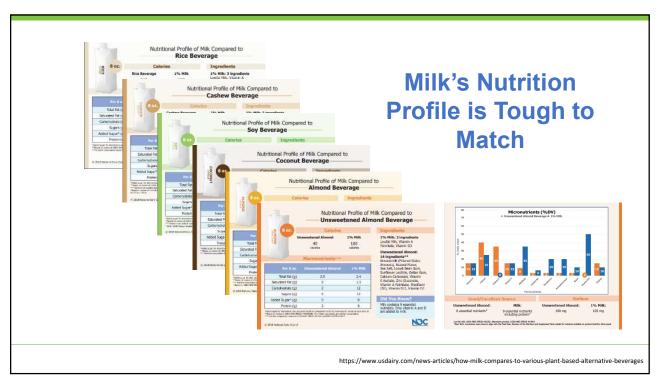
What About Plant-Based Alternatives?

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What Type of Milk Should I Feed My Child?



There's an Option in the Dairy Aisle for Everyone

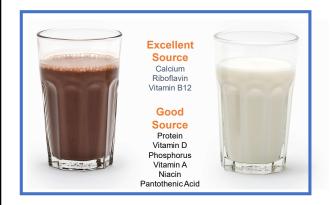
Regardless of farming or production practices, all cows' milk options are nutrient-rich, safe and wholesome:

- Conventional
- Organic
- Grass-fed
- A2 Beta Casein



Flavored Milk: Consider the Full Nutrient Package

Flavored Milk & Plain Milk = Same 9 Essential Nutrients



Added Sugar Contribution Diets 2-18 years old (NHANES 2011-14)			
Sugar Sweetened Beverages	36%		
Flavored milk	4%		
Yogurt	2%		

Cifelli, C.J.,et al. *The FASEB Journal*. 2016. NHANES Data from: Dairy Research Institute®. NHANES 2011-2014.

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Teens and Tweens: Puberty? Acne?

There is No Link Between Dairy Intake and Early Puberty

- Science does not support link between early puberty and consumption of milk
- No conclusive evidence that any food is linked with early puberty
- Observational studies link higher body mass index or increased bodyfat to earlier initiation
- Early puberty can be a sign of malfunction of endocrine glands or other underlying medical problem. Important to seek medical advice





Milk Consumption after Age 9 Years Does Not Predict Age at Menarche¹⁻³

Jenny L. Carwile, *Walter C Willett, *4.5.7 Molin Wang, *6 Janet Rich-Edwards, *4.7.9 A Lindsay Frazier, *7.10.11 and Karin B Michels *4.7.5.11*

Prospective Study N=5,583 premenarcheal girls ages 9-14 in 1996. Followed through 2001

"Our findings suggest that regular consumption of milk in girls aged 9 y is unlikely to substantially affect age at onset of menarche. Studies assessing associations between diet in early childhood and pubertal timing may be more Illuminating."

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Debunking the Milk and Acne Myth

85% people between 12 and 24 report at least one occurrence of acne¹





Journal of the American Academy of Dermatology

"Given the current data, no specific dietary changes are recommended in the management of acne."

Guidelines for Management of Acne Vulgarus. J Am Acad Dermatol May 2016.

A Moment for Mom Setting the Stage: The First 1,000 Days

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Dairy Foods Provide Important Nutrients for the First 1,000 Days



Vitamin B12

- Insufficient prenatal vitamin B12 intake can lead to higher risk of:
 - · Gestational diabetes
 - · Pregnancy loss
 - Fetal neural tube defects
 - · Fetal orofacial clefts
 - Small for gestational age
 - · Low weight
- Milk, cheese and yogurt are good or excellent sources of vitamin B12



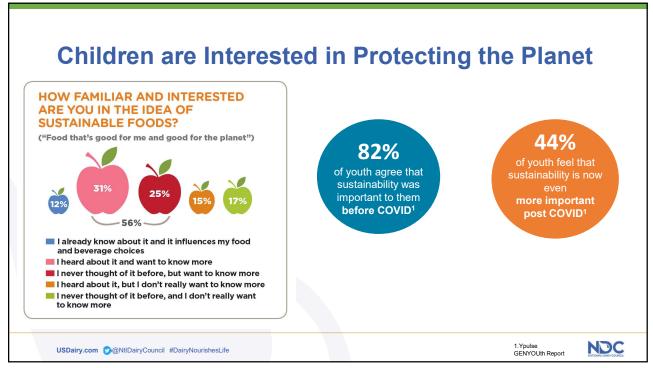
- Potential nutrient of public health concern
- Needs increase 50% during pregnancy.
- Prenatal iodine deficiency may lead to irreversible neurocognitive defects
- Milk and yogurt are good sources of iodine

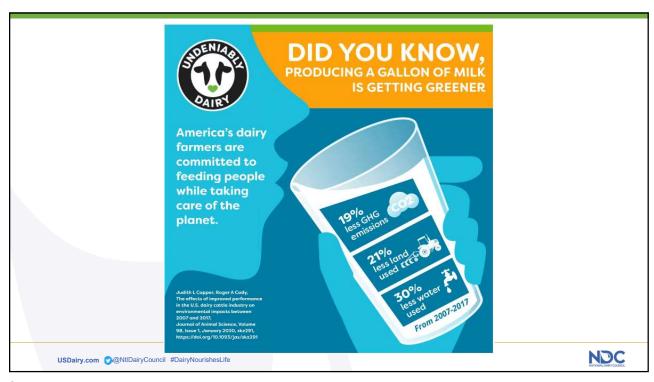
Milk is a good or excellent source of 9 essential nutrients
 Vitamin D is added to milk.
 Vitamin A is naturally occurring in whole milk.

 ²⁰²⁰ Dietary Guidelines Advisory Committee's Scientific Report.
 Pediatric Nutrition 8th ed. American Academy of Pediatrics, 2019.

Is Dairy Good For The Planet?

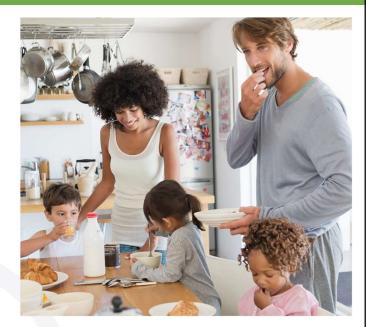
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Wrapping Up

- Childhood is a critical window to learn to like foods and build healthy habits to prevent chronic disease
 - Introduction of cheese and yogurt ~ 6 months provides a unique taste and sensory experience
 - Whole milk should be introduced around the first birthday
 - Authoritative bodies recommend milk and water as the go-to beverages for children and caution alternatives may not provide the same nutritional package
- Dairy foods have an important role in the diets of expectant moms and the health of their babies



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NDC NATIONAL DARTY COUNCE

Dairy Foods Are An Important Part of Healthy Eating Styles

Children fall short on dairy recommendations by 4 years of age

Age	Daily Dairy Food Recommendations
Birth-6 months	Breast milk or formula only – no solid foods
6-8 months	Pasteurized cheese and plain whole milk yogurt
8-12 months	½ ounce pasteurized cheese and ½ cup plain whole milk yogurt
12-24 months	4-5, ½ cup servings plain whole milk, ½ ounce cheese or ½ cup serving yogurt
2-3 years	2 cup-equivalent servings low-fat or fat-free milk, cheese, yogurt or fortified soy beverage
4-8 years	2.5 servings low-fat or fat-free milk, cheese, yogurt or fortified soy beverage
<u>></u> 9 years	3 servings low-fat or fat-free milk, cheese, yogurt or fortified soy beverage

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Scientific Report of the 2015 Dietary Guidelines Advisory Committee American Academy of Pediatrics and National Dairy Council. A Feeding Guide for Children



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Overcoming Obstacles

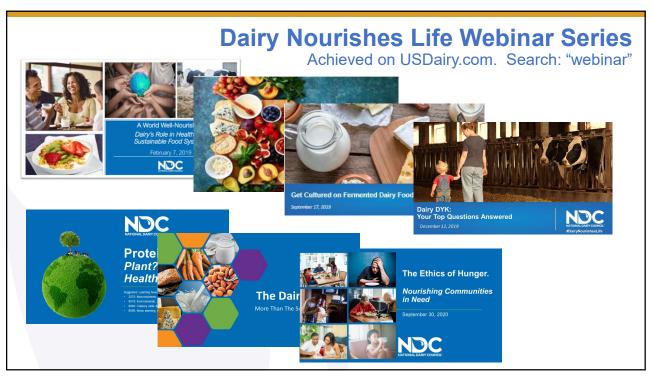
- · Milk allergy and lactose intolerance are very different conditions
 - · LI is uncommon in children and is a highly individualized condition, the good news is there are dairy-based solutions that can be tailored to meet most peoples' needs
- · There is no need to eliminate dairy if concerned about acne or asthma and no link between dairy intake and early
- · Regardless of farming or production practices, cow's milk, including lactose free, provides the same nine essential nutrients, is safe and wholesome
- · There are numerous affordable, delicious and fun ways to incorporate dairy in the diets of children and adults!



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Sustainable Nutrition Internship

Application: Linked in post webinar email

Deadline: February 15, 2021



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Questions?

Please enter your questions into the chat window.



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