





Housekeeping

- You are muted and your camera is turned off
- Write questions in Q&A section
- Continuing Education* and Zoom recording will be available on [AmericanDairy.com](https://www.AmericanDairy.com)

CPEU & CME credit
provided by: NJAND and
MDAFP

1.0 CPEU APPROVED

1.25 CME APPROVED – The AAFP has reviewed Closing the Gap Between Health and Generation Z and deemed it acceptable for up to 1.25 Live AAFP Prescribed credits. Term of Approval is from 06/15/2022 to 06/15/2022. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Co-Sponsors

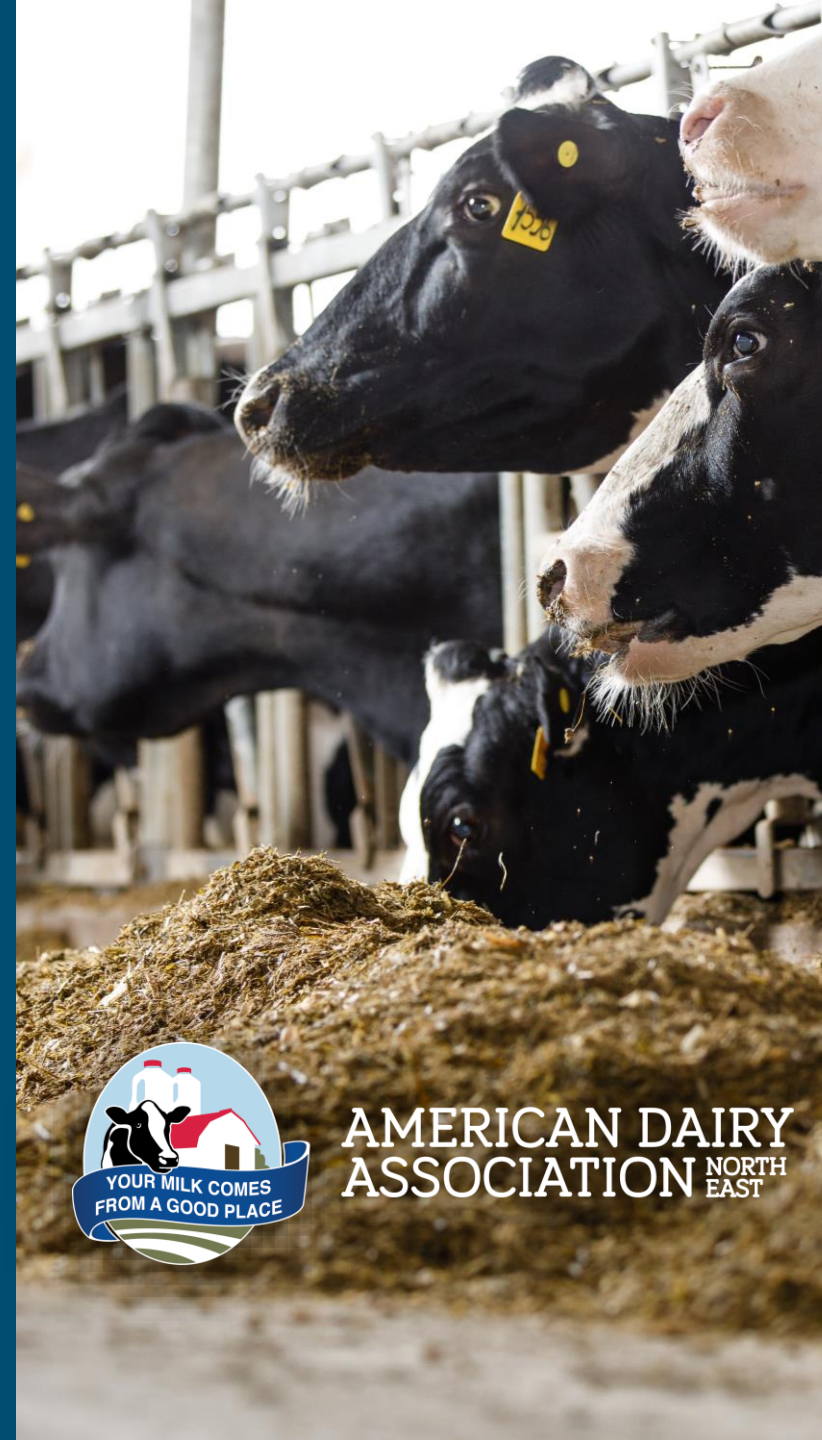


Closing the Gap Between Health and Gen Z

Liz Jalkiewicz, RDN, LDN

Brad Bolling, PhD

Toby Amidor, MS, RD, CDN, FAND



AMERICAN DAIRY
ASSOCIATION NORTH
EAST

Our Speakers



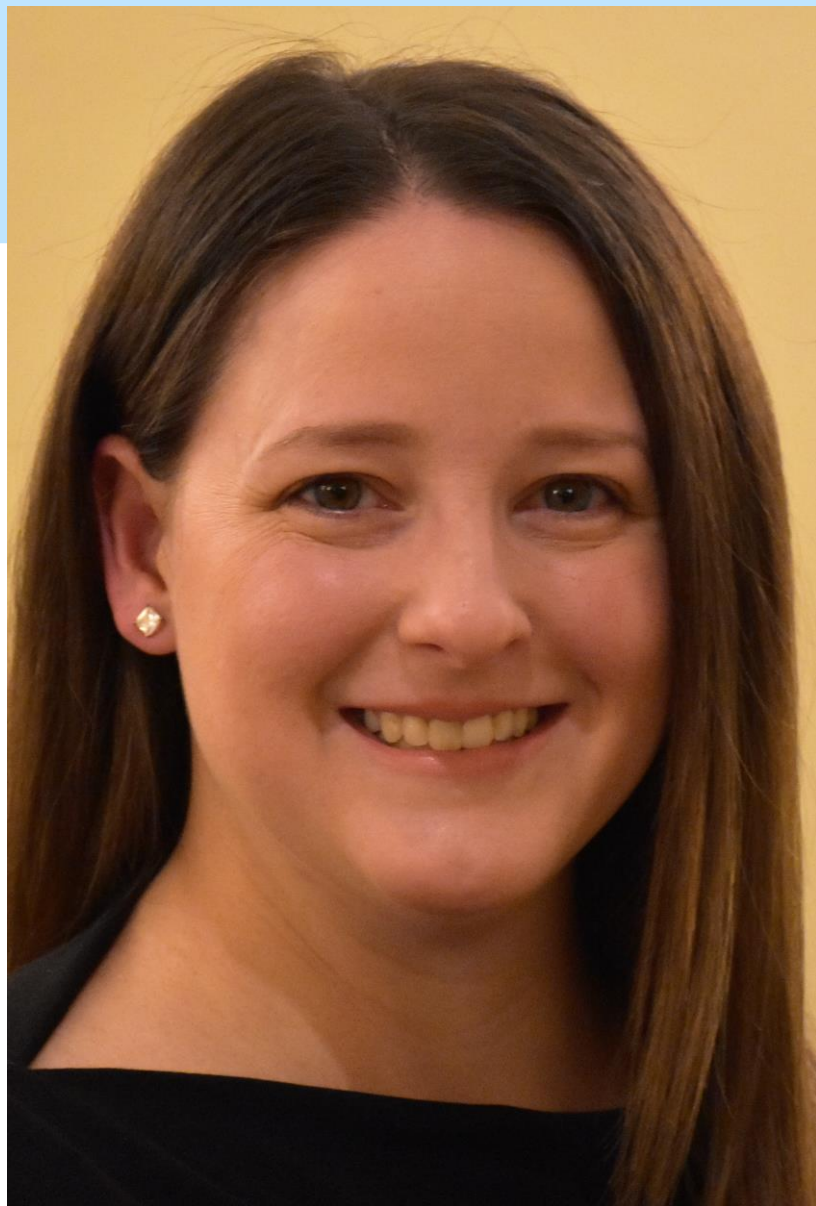
Liz Jalkiewicz, RDN, LDN



Brad Bolling, PhD



Toby Amidor, MS, RD, CDN, FAND



Liz Jalkiewicz, RDN, LDN

Health & Wellness Specialist

Speaker Disclosure:





Brad Bolling, PhD

Speaker Disclosures

Research Funding:

CS Health Solutions

Fritz Friday Chair of Vegetable Processing Research

Kikkoman USA R&D Laboratory

National Dairy Council

USDA HATCH WIS02094

USDA NIFA AFRI WIS0909

UW Dairy Innovation Hub

UW-Madison Graduate School

UW-Madison Dept. of Food Science

Wisconsin Alumni Research Foundation

Honoraria/Travel Support:

National Dairy Council

American Dairy Association North East

NZO (Dutch Dairy Association)

Patent:

US Application 17/003,625



Toby Amidor, MS, RD, CDN, FAND Speaker Disclosures

- Sponsored by American Dairy Association Northeast
- Ambassador, National Dairy Council
- Nutrition partner, Beef Checkoff
- Member, Dannone Essential Dairy and Plant-Based Advisory Board
- Spokesperson, Cocoa Via

Learning Objectives

- Understand the characteristics of the Gen Z consumer segment as it relates to their demographics, behavior, and learning style when it comes to health and wellness content.
- Summarize and explain the latest science and research as it pertains to health claims supporting Immunity, Calm, Sustained Energy, and Digestive Health messaging.
- Translate the science into consumer-friendly health and wellness messages that you can apply when communicating with your Gen Z clientele.



Meet Gen Z: Ages 10-23



Digital Natives

The most connected generation
growing up with technology,
the internet and social media

Gen Z Personality

Relentlessly ambitious
Expectant
Purpose driven
Inclusive



Source: DMI



Meet Gen Z (cont.)



Struggles

- Anxiety
- Lack of self confidence
- Bullying
- Worry about larger issues
- Social pressures



Key Insight

To be confident and my real self,
I must take care of my body,
mind and those around me
(friends, planet, etc)



Source: DMI

Health & Wellness: Gen Zs Focus Four



IMMUNITY

Protecting
overall health



CALM

Providing
emotional
well-being to
take
on the day



ENERGY

Sustaining
mind and
body through
the day



DIGESTIVE HEALTH

A healthy gut
and
lactose free
options

Food & Health

The gut as a mediator of immune health.

Presented by Dr. Brad Bolling

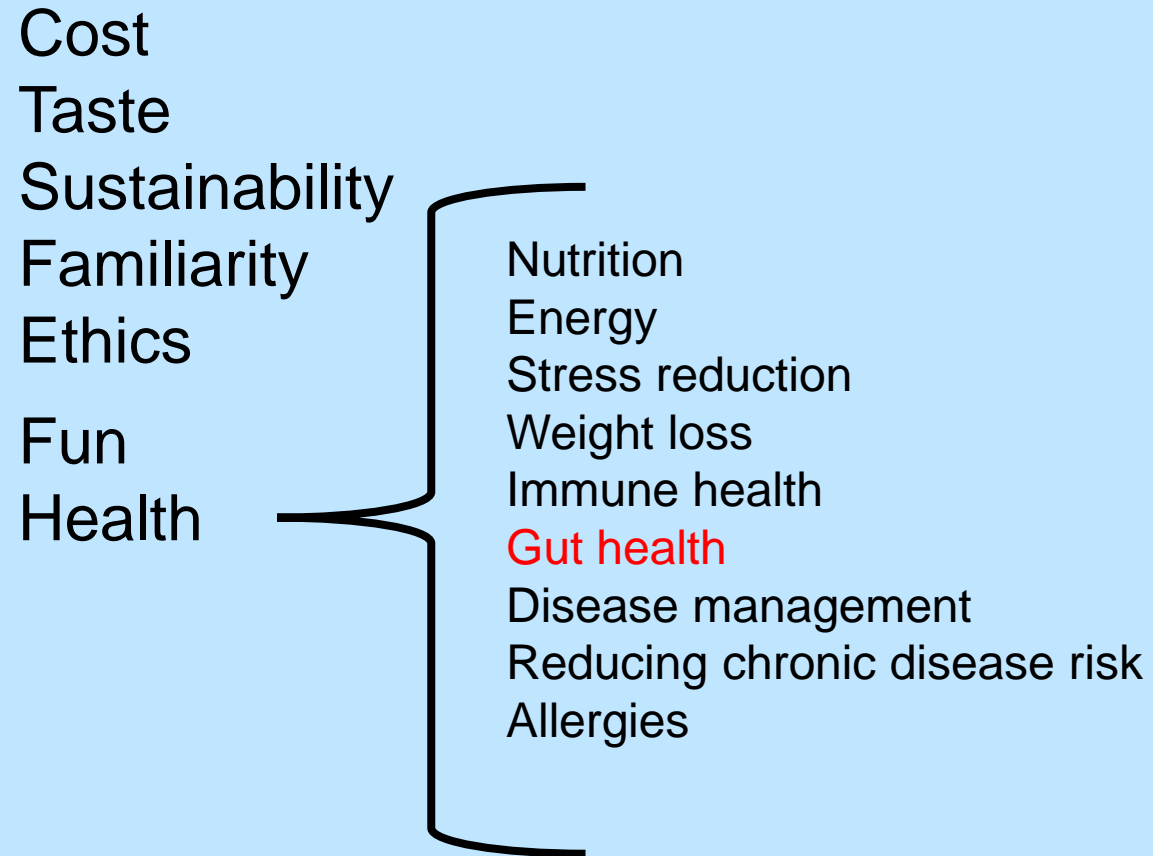


AMERICAN DAIRY
ASSOCIATION NORTH
EAST

Polling Question #1



We eat different types foods more many reasons!



Recommended dietary patterns for health



DGA: Healthy U.S.-Style Dietary Pattern
DGA: Mediterranean-style Dietary Pattern
DGA: Vegetarian Dietary Pattern
Dietary Approaches to Stop Hypertension (DASH)

Following the *Dietary Guidelines* Can Help Improve Americans' Health

Each step closer to eating a diet that aligns with the *Dietary Guidelines* is associated with:



Lower Risk of
Heart Disease



Lower Risk of
Type 2 Diabetes



Lower Risk of
Cancer



Lower Risk of
Obesity



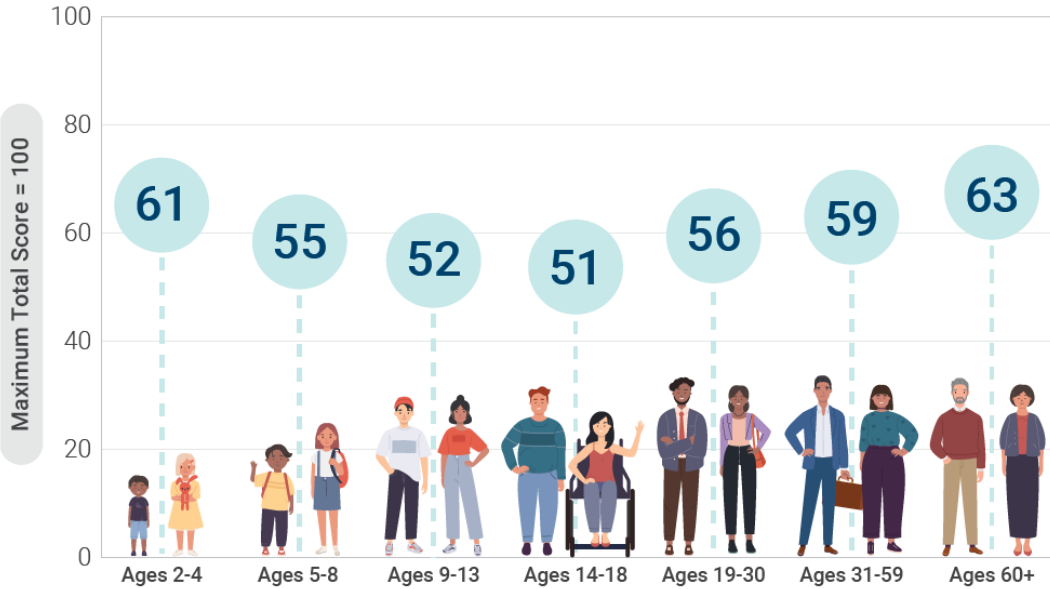
Lower Risk of
Hip Fracture



Diet & risk of chronic disease (in healthy individuals)

Most Americans Do Not Follow a Healthy Dietary Pattern

Figure 1-4
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.

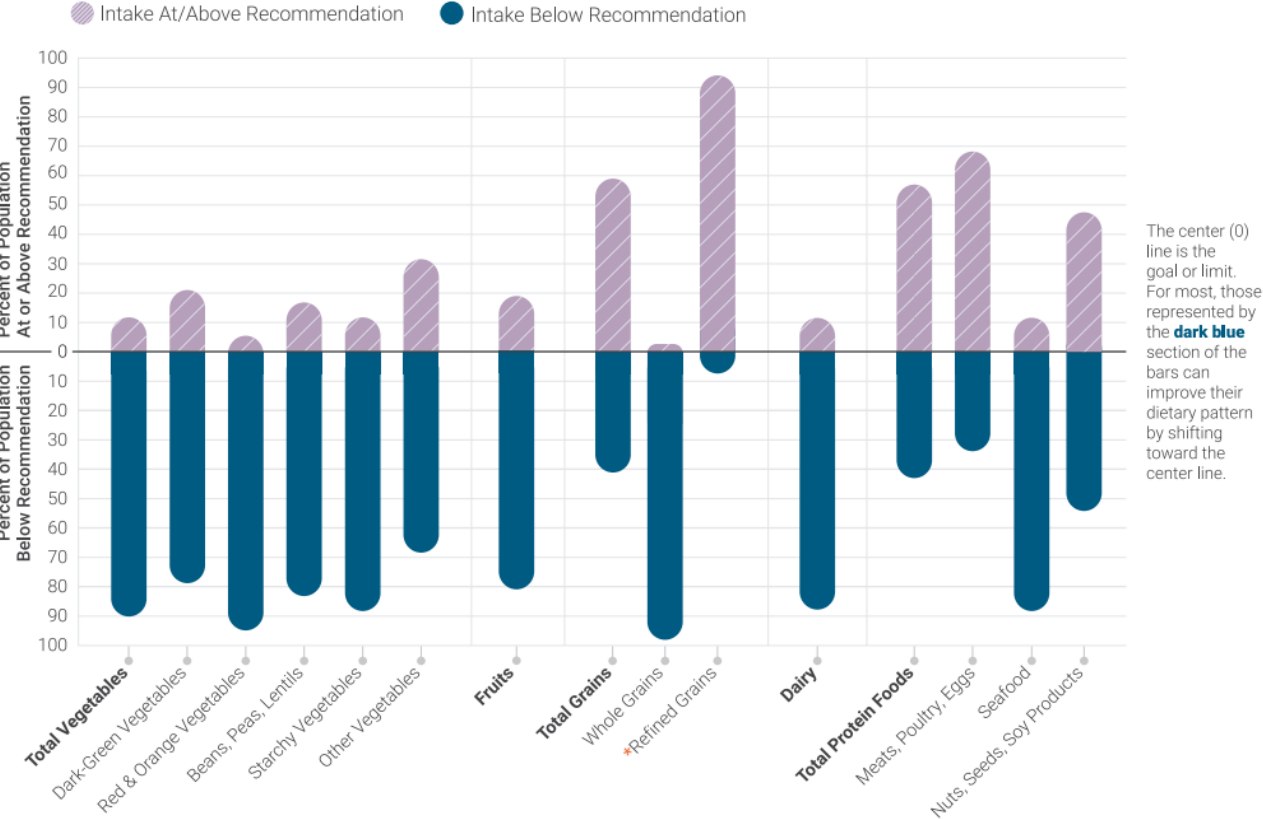
Data Source: Analysis of What We Eat in America, NHANES 2015-2016, ages 2 and older, day 1 dietary intake data, weighted.

Dietary Guidelines for Americans, 2020-2025

The Healthy Eating Index (HEI) is a measure of diet quality that can be used to assess compliance with the Dietary Guidelines. For Americans ages 2 and older, HEI-2015 scores indicate that intakes are not consistent with recommendations for a healthy dietary pattern. Average diet quality has slightly improved in the past 10 years, but the average score of 59 (on a scale from 0 to 100) indicates that people have much room for improvement.

Most Americans Do Not Follow a Healthy Dietary Pattern

Figure 1-6
**Dietary Intakes Compared to Recommendations:
Percent of the U.S. Population Ages 1 and Older Who Are
Below and At or Above Each Dietary Goal**



*NOTE: Recommended daily intake of whole grains is to be at least half of total grain consumption, and the limit for refined grains is to be no more than half of total grain consumption.

Underconsumed nutrients of concern:
potassium, dietary fiber, choline,
magnesium, calcium, vitamin A, vitamin
D, vitamin E, vitamin C, iron (adolescent
girls, women 19-50 y.o.)

Healthful diets include nutrients and bioactives

Nutrients

Macronutrients

Lipids, proteins, carbohydrates

Micronutrients

Vitamins, minerals

Bioactives

Alkaloids

Organosulfurs

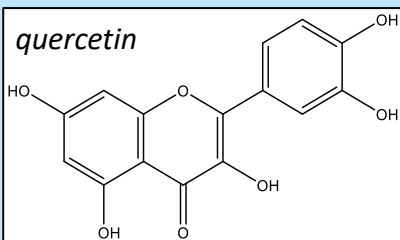
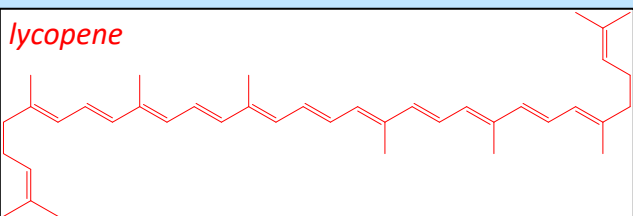
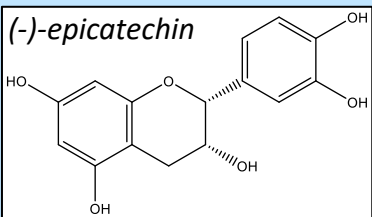
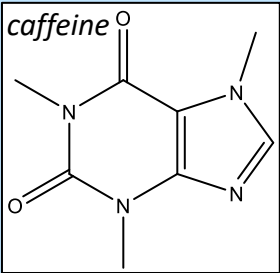
Phenolics

Carotenoids

Phytosterols

Peptides

Many others...



Dairy is a good source of nutrients and bioactives



Bioactives
 α -lactalbumin
 β -lactoglobulin
glycomacro-peptide
lactoferrin
polar lipids

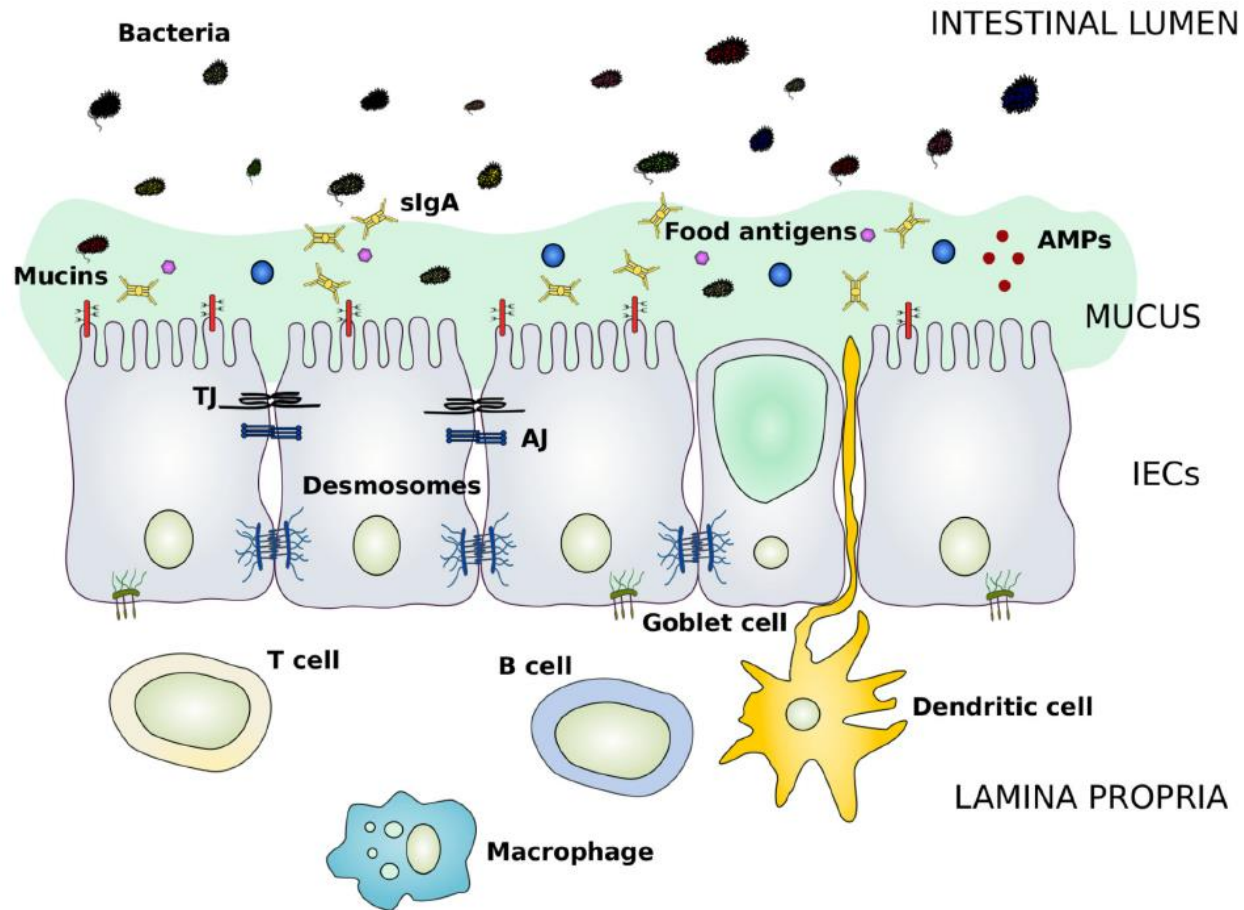


Bioactives
cultures
probiotics
peptides
metabolites



Bioactives
cultures
probiotics
metabolites
peptides
exopolysaccharides

Chronic Inflammation



Tissues

The gut is an important site of immune function

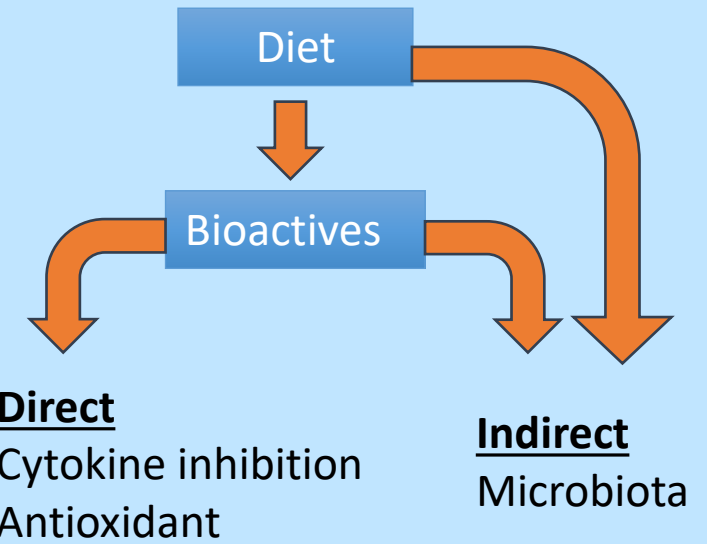
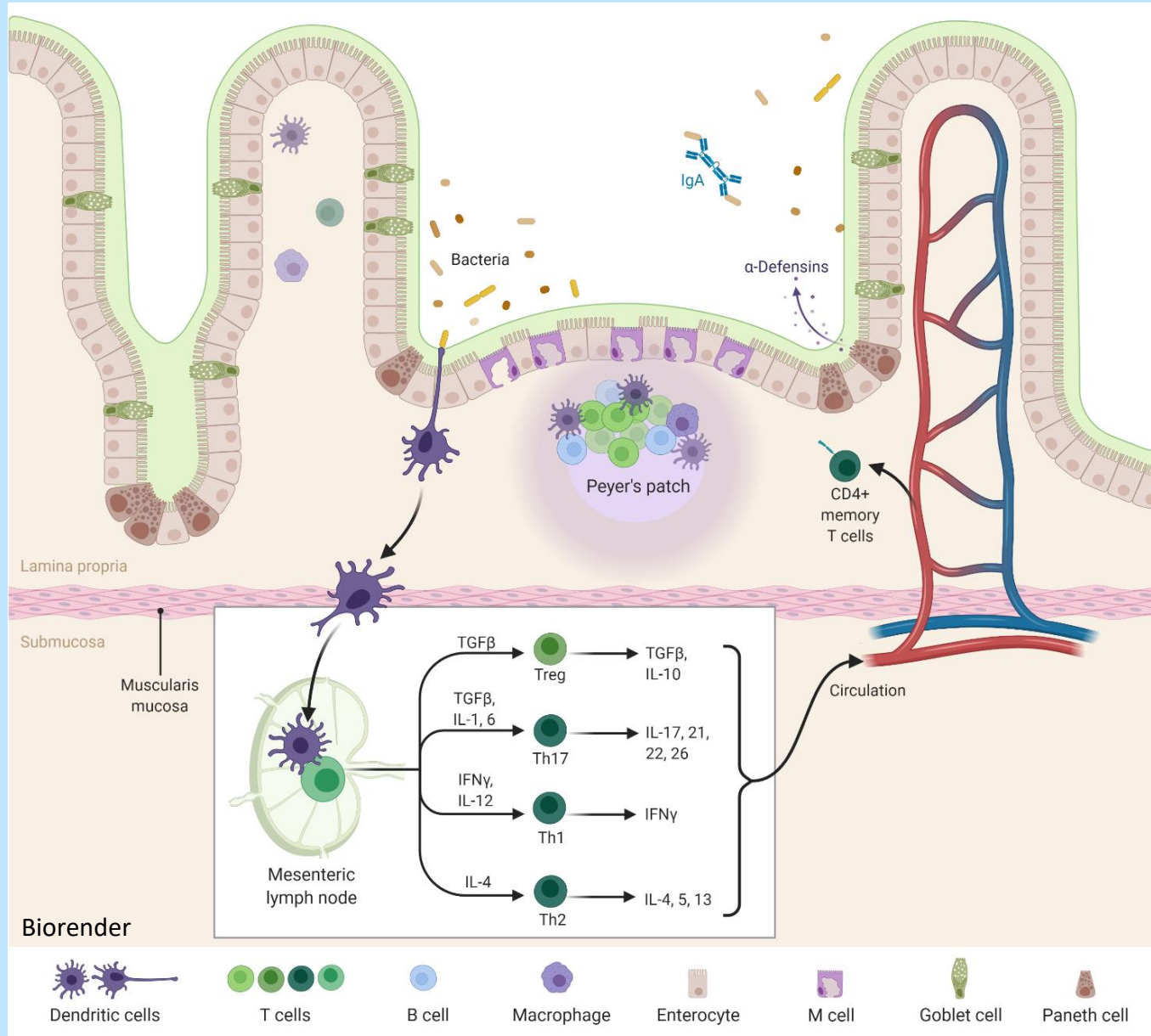


Biomarkers

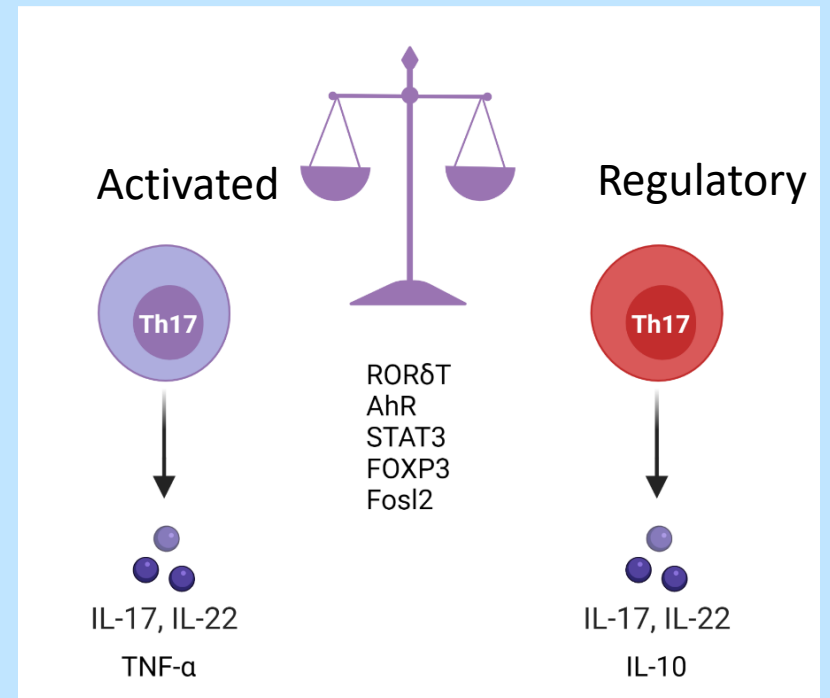
- C-reactive protein (CRP)
- Tumor necrosis factor (TNF)- α
- Interleukins (IL): IL-6, IL-10



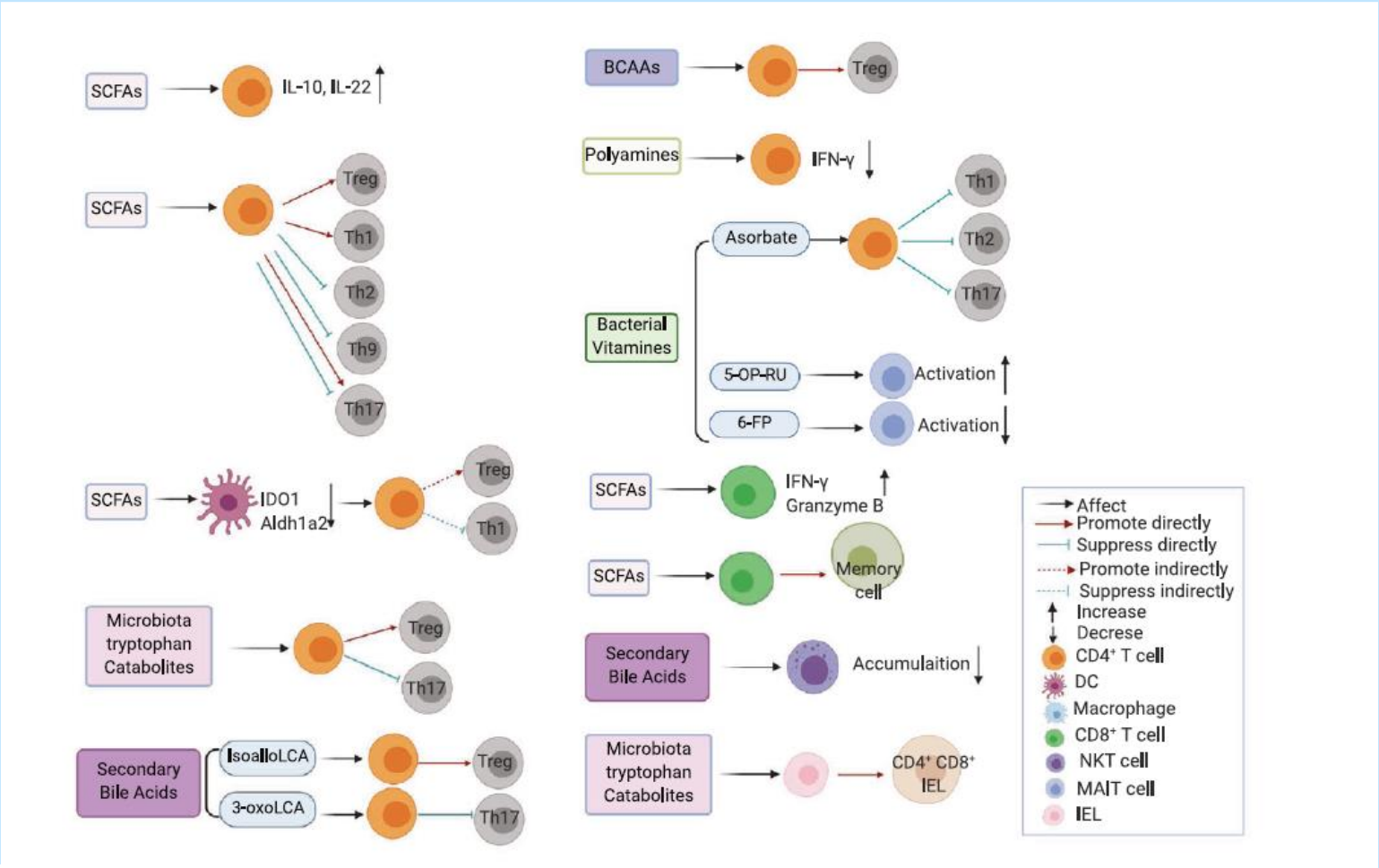
Nutrients and bioactives interface with the intestinal immune system



Th17 Plasticity



The gut is also linked to the immune system, brain, liver, lung, oral, and many others...

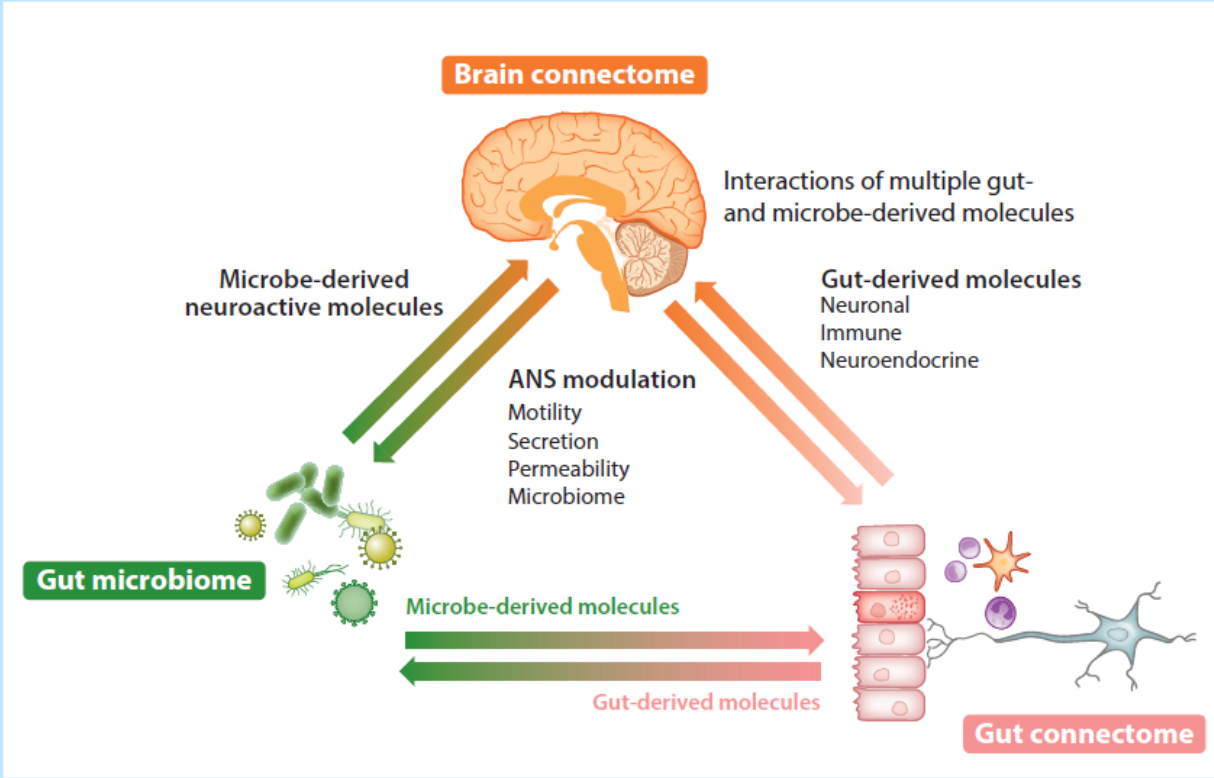


Microbial metabolites involved in pathogenesis of:

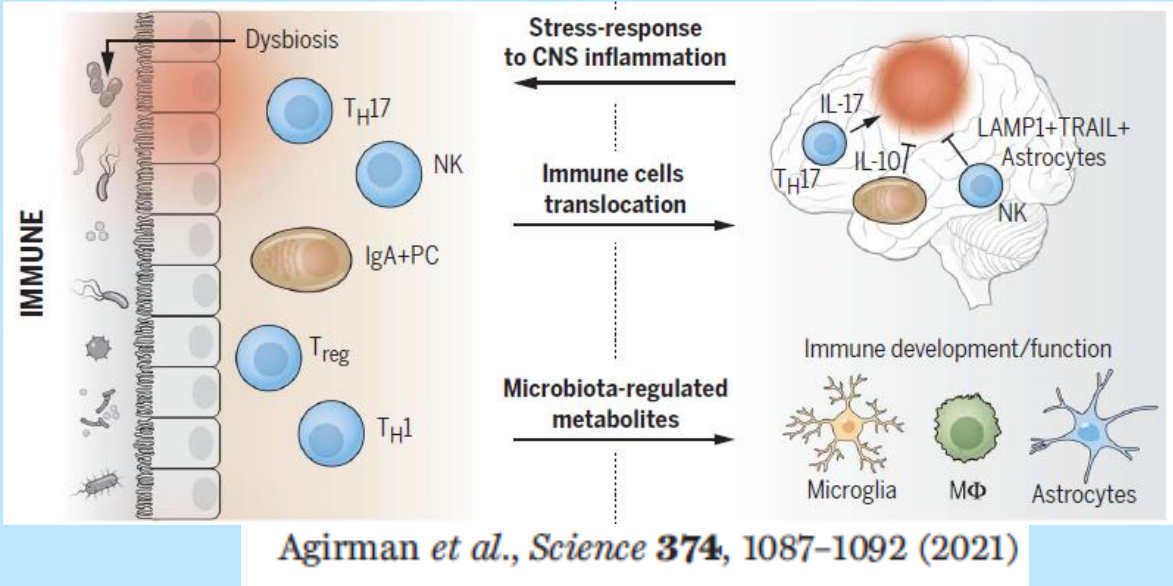
- Inflammatory bowel diseases
- Diabetes
- Rheumatoid arthritis
- Systemic lupus erythematosus
- Cardiovascular disease
- Cancers

The gut is also linked to the immune system, brain, liver, lung, oral, and many others...

Gut/brain axis

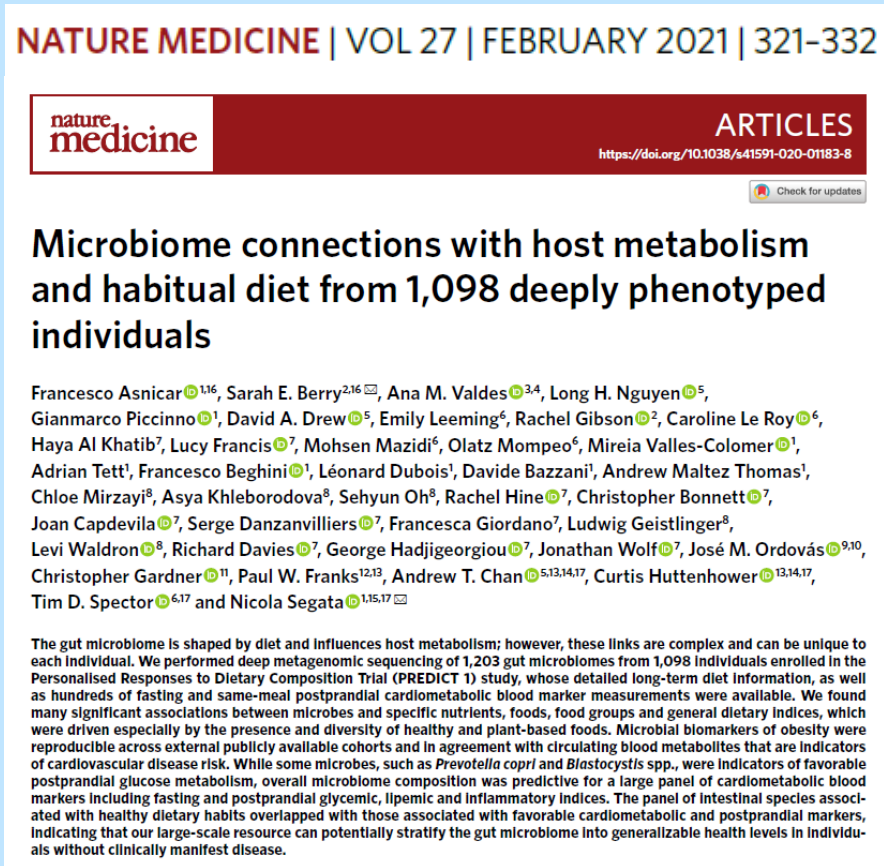


Mayer, Nance & Chen *Annu. Rev. Med.* 2022. 73:439–53



The gut microbiota are integral to health

Factors include genetics, co-habitation, diet, age, environment, health history



Microbial species segregate into groups associated with more and less healthy plant- and animal- based foods.

Distinct microbial signatures discriminate between positive and negative metabolic health indices under fasting conditions

Microbial indicators of obesity are reproducible across varied populations.

The strongest microbiome habitual diet associations are driven by poorly characterized microbes.

Still, much to learn!

Personalized Responses to Dietary
Composition Trial (PREDICT 1)

Misconceptions about dairy and gut health

Dairy is pro-inflammatory

Dairy is bad for gut health



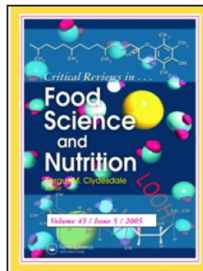
<https://www.health.harvard.edu/blog/dairy-health-food-or-health-risk-2019012515849>

Dairy Foods Are Not “Pro-inflammatory”



The American Journal of **CLINICAL NUTRITION**

The Effects of Dairy Product and Dairy Protein Intake on Inflammation: A Systematic Review of the Literature



Critical Reviews in Food Science and Nutrition

**Dairy products and inflammation:
A review of the clinical evidence**

ISSN: 1040-8398 (Print) 1549-7852 (Online) Journal homepage: <http://www.tandfonline.com>

Advances in Nutrition

Milk and Dairy Product Consumption and Inflammatory Biomarkers: An Updated Systematic Review of Randomized Clinical Trials

Systematic Review 27 Randomized Control Trials

“This systematic review shows that consumption of dairy products [i.e., milk, cheese, yogurt] and proteins [i.e., whey, casein] has neutral to beneficial effects on biomarkers of inflammation.”

Nieman K, et al. The Effects of Dairy Product and Dairy Protein Intake on Inflammation: A Systematic Review of the Literature. J Am Coll Nutr. 2021 Aug; 40 (6) 571-582.

Systematic Review 52 Clinical Trials

“Our review suggests that dairy products, in particular fermented products, have anti-inflammatory properties in humans not suffering from allergy to milk, in particular in subjects with metabolic disorders.”

Bordoni A, et al. Dairy Products and Inflammation: A Review of the Clinical Evidence. Crit Rev Food Sci Nutr. 2017 Aug 13; 57 (12): 2497-2525.

Systematic Review 16 Studies

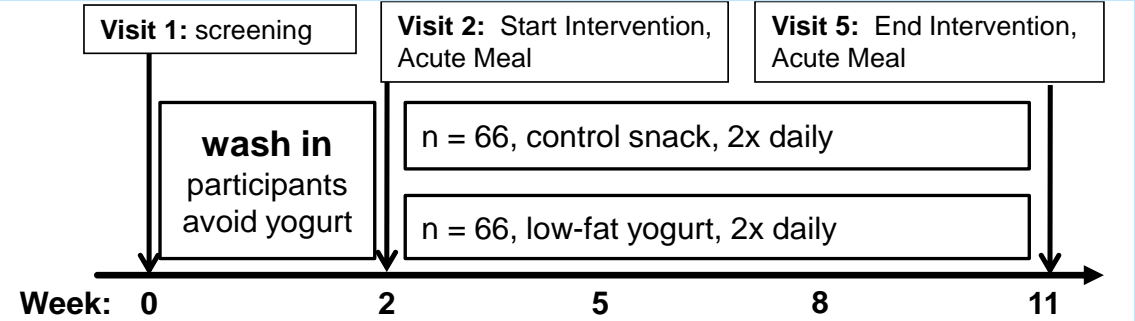
“The consumption of milk or dairy products did not show a proinflammatory effect in healthy subjects or individuals with metabolic abnormalities.”

Ulven SM, et al. Milk and Dairy Product Consumption and Inflammatory Biomarkers: An Updated Systematic Review of Randomized Clinical Trials. Adv Nutr. 2019 May 1; 10 (suppl_2): S239-S250.

Yogurt and gut health



or

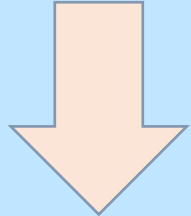


Nutrient	Low-fat Yogurt	Control (soy pudding)
Serving (g)	339 (12 oz.)	324
Calories (kcal)	330	330
Total fat (g)	3	3
Carbohydrate (g)	66	66
Protein (g)	9	6-9
Cholesterol	15	0
Sodium (mg)	180	165-210
Calcium (mg)	450	180-450
Vit. D (IU)	6.75	6.75
Vit A (IU)	1500	600

Non-obese: 18.5-27 kg/m²
Obese: 30-40 kg/m²

Yogurt and gut health

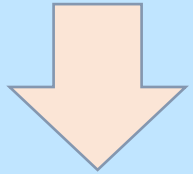
Overnight fast



Baseline (0 h blood draw)

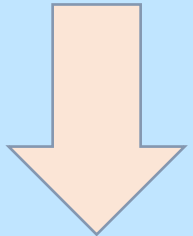


8 oz. yogurt or equivalent control



~ 10 min

Challenge meal



~ 30 min

Postprandial blood draws



226 kcal



960 kcal

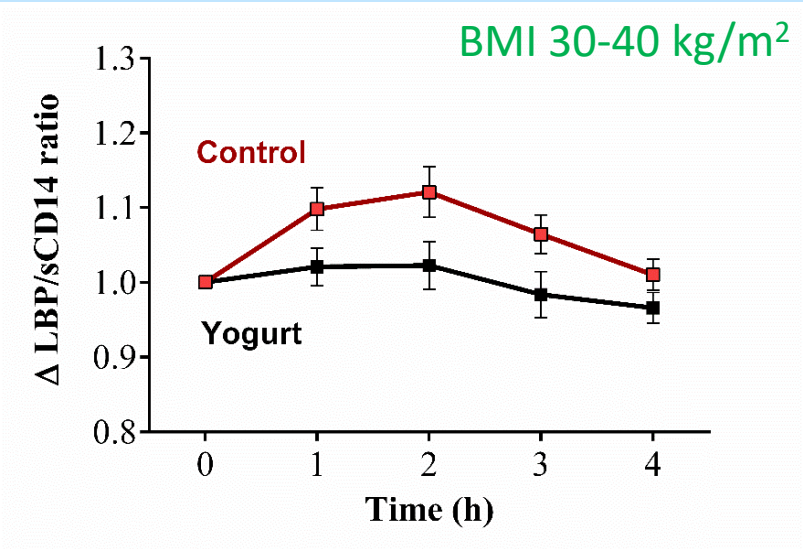
56-60 g fat

82 g carbohydrate

28-30 g protein

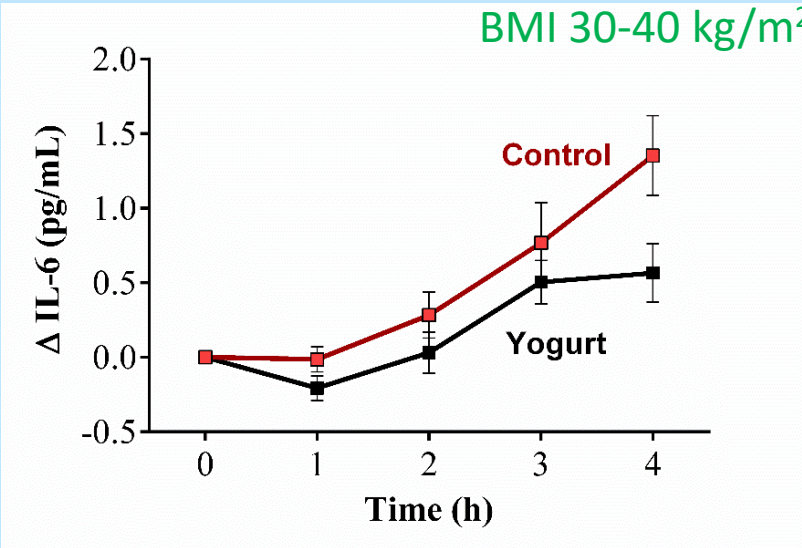
Premeal consumption of yogurt reduces post-meal markers of gut barrier dysfunction and inflammation

Biomarker of barrier dysfunction

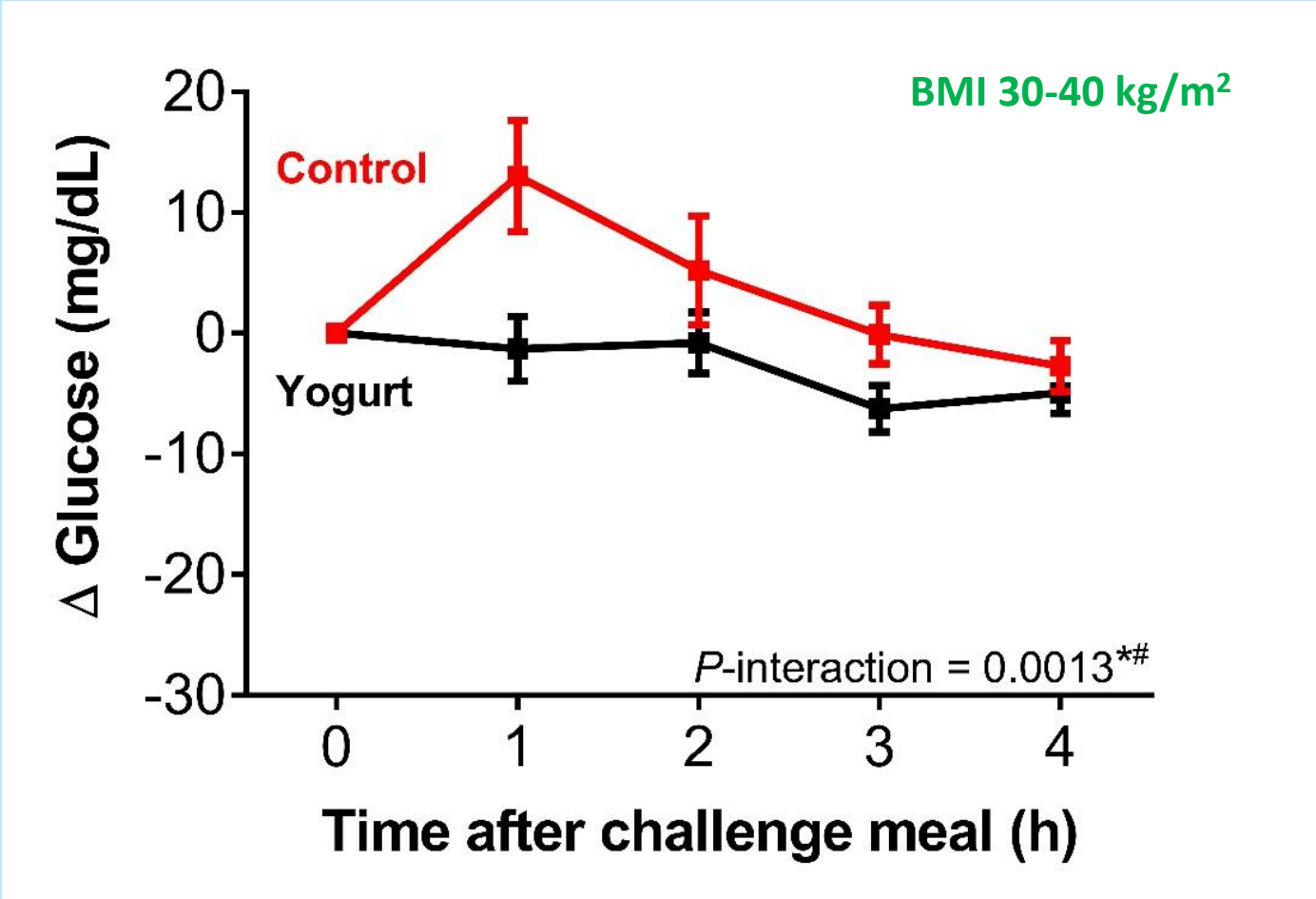


LBP: LPS-binding protein

Biomarker of inflammation

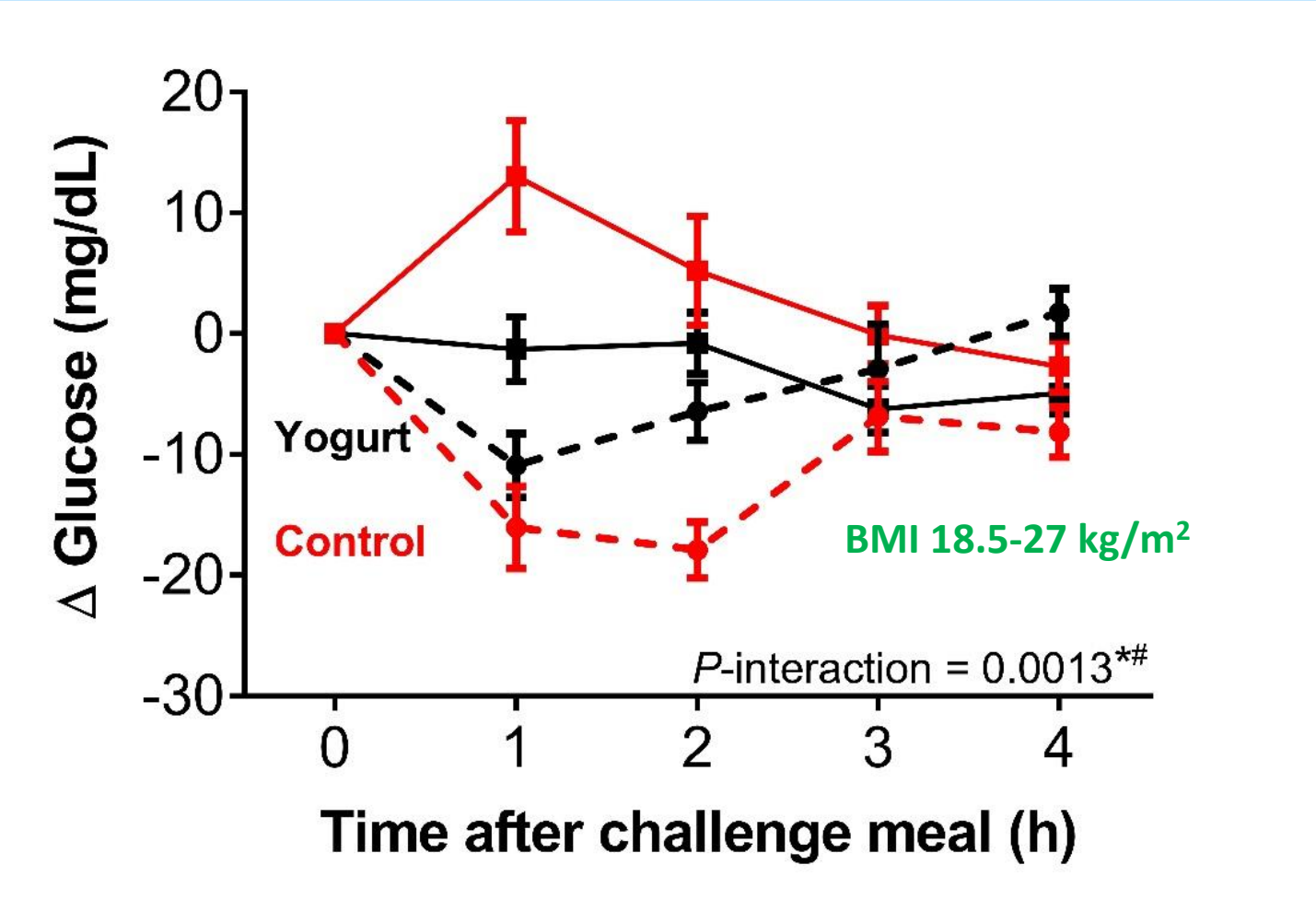


Yogurt improves postprandial glucose responses



Pei et al. J Nutr. 2018

Yogurt improves postprandial glucose responses



Yogurt and gut health: Fasted responses after 9 wk consumption

Marker	(O) Yogurt	(O) Control	(N) Yogurt	(N) Control
sCD14	↔	↔	↔	↔
LBP/sCD14*	-5%	+11%	+12%	+17%
Endocab*	+5%	-1%	+6%	-2%
IL-6	↔	↔	↔	↔
hsCRP	↔	↔	↔	↔
TNF-α/sTNFRII*	-7%	-2%	-8%	+10%

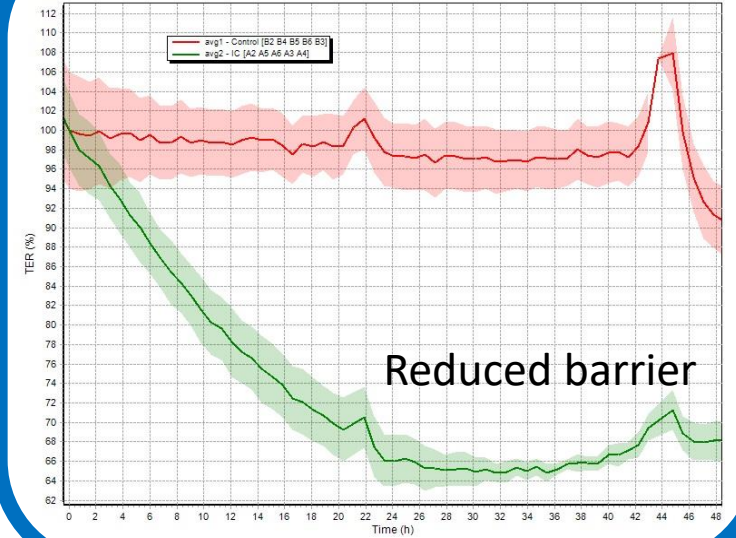
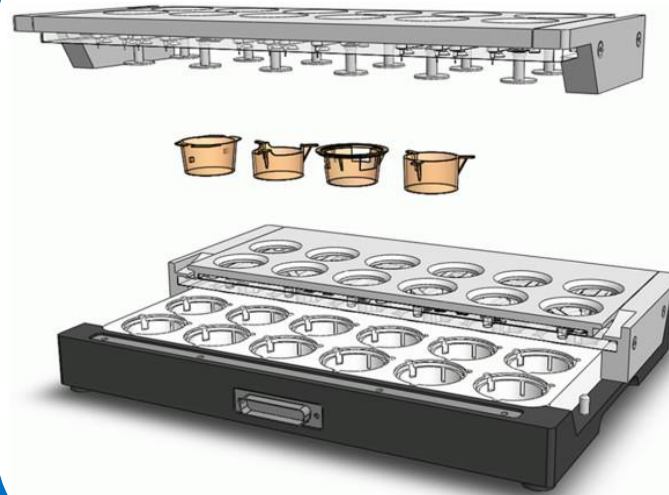
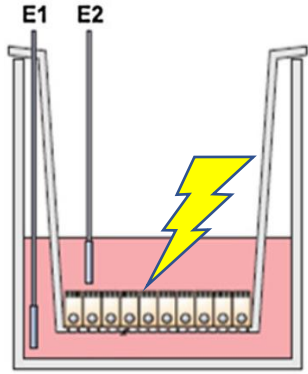
P<0.05, *treatment, #obesity

Pei et al., Br. J. Nutr (2017)

Chronic Inflammation Reduces Intestinal Barrier Function

Inflammatory cocktail (IC)

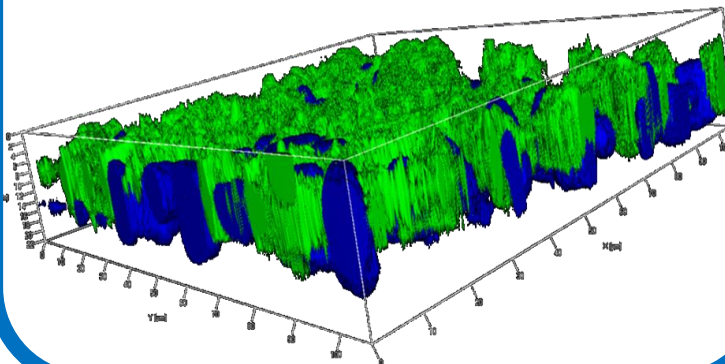
+ TNF- α , IFN- γ , IL-1 β L, PS



Tight Junctions in Caco-2 cells

Green = ZO-1

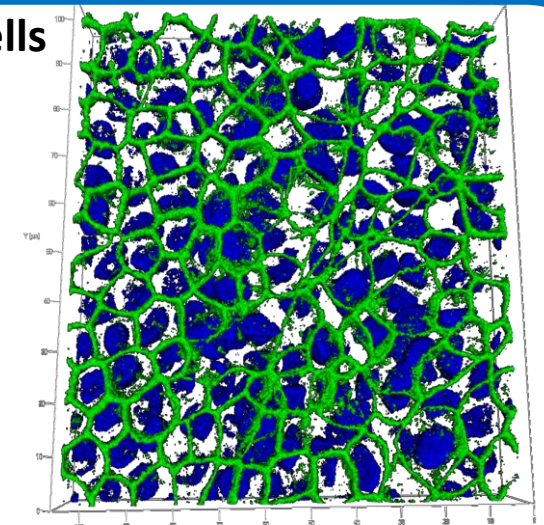
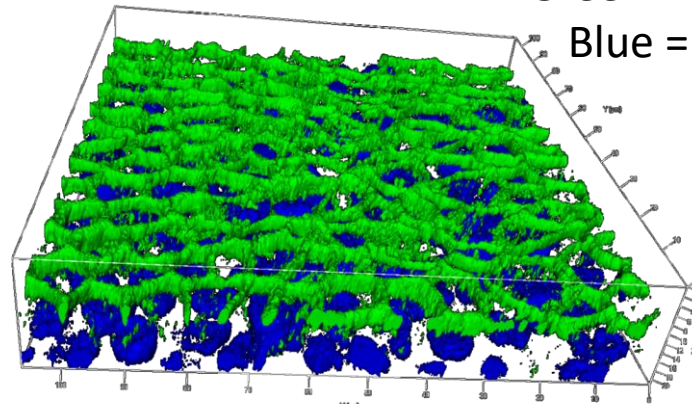
Blue = Nuclei



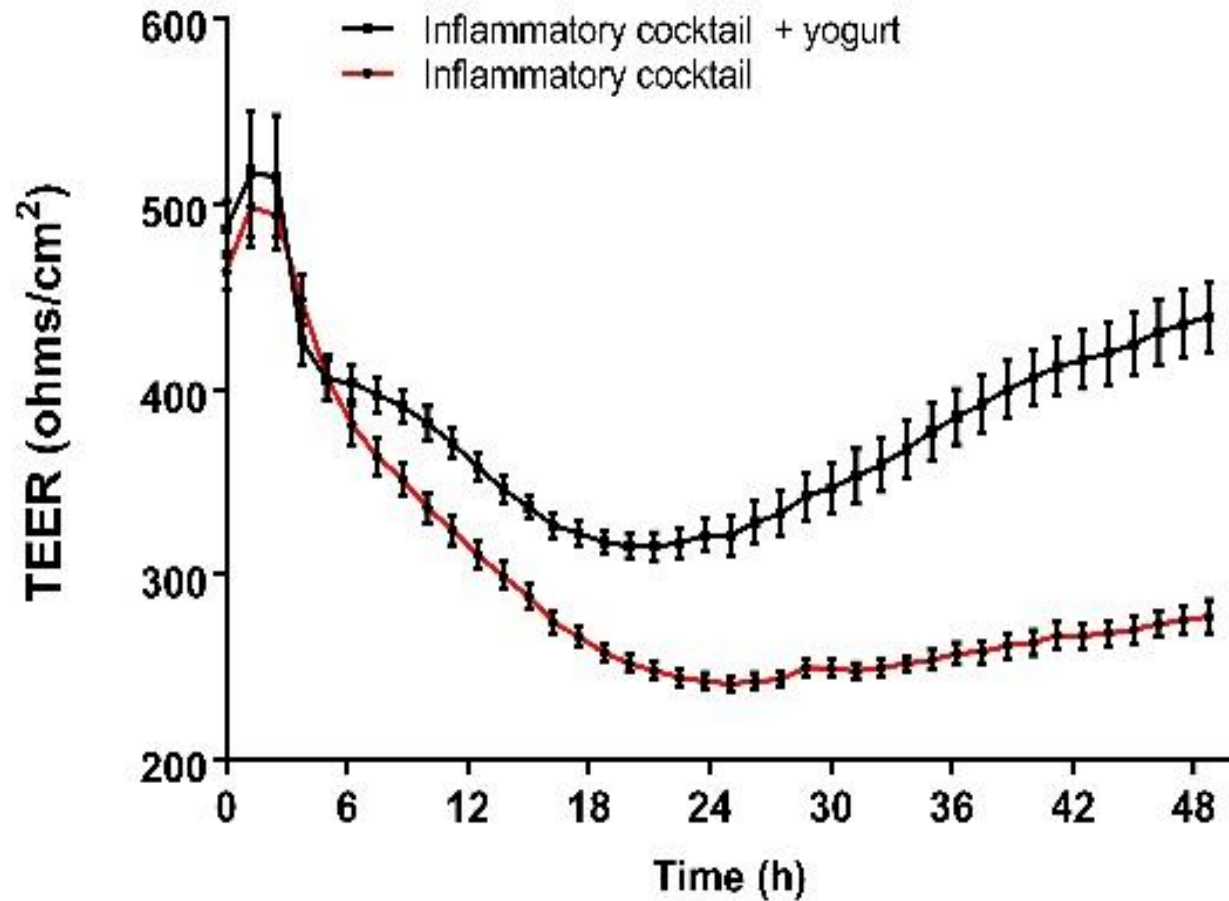
Tight Junctions in Caco-2 cells

Green = Occludin

Blue = Nuclei

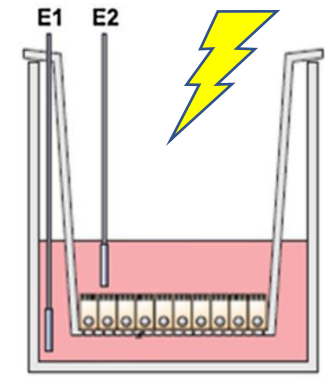


Yogurt Prevents Intestinal Barrier Dysfunction



IC + Yogurt

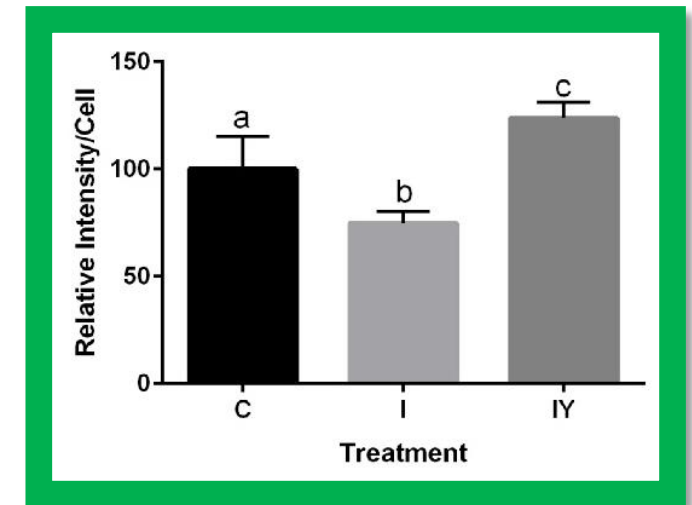
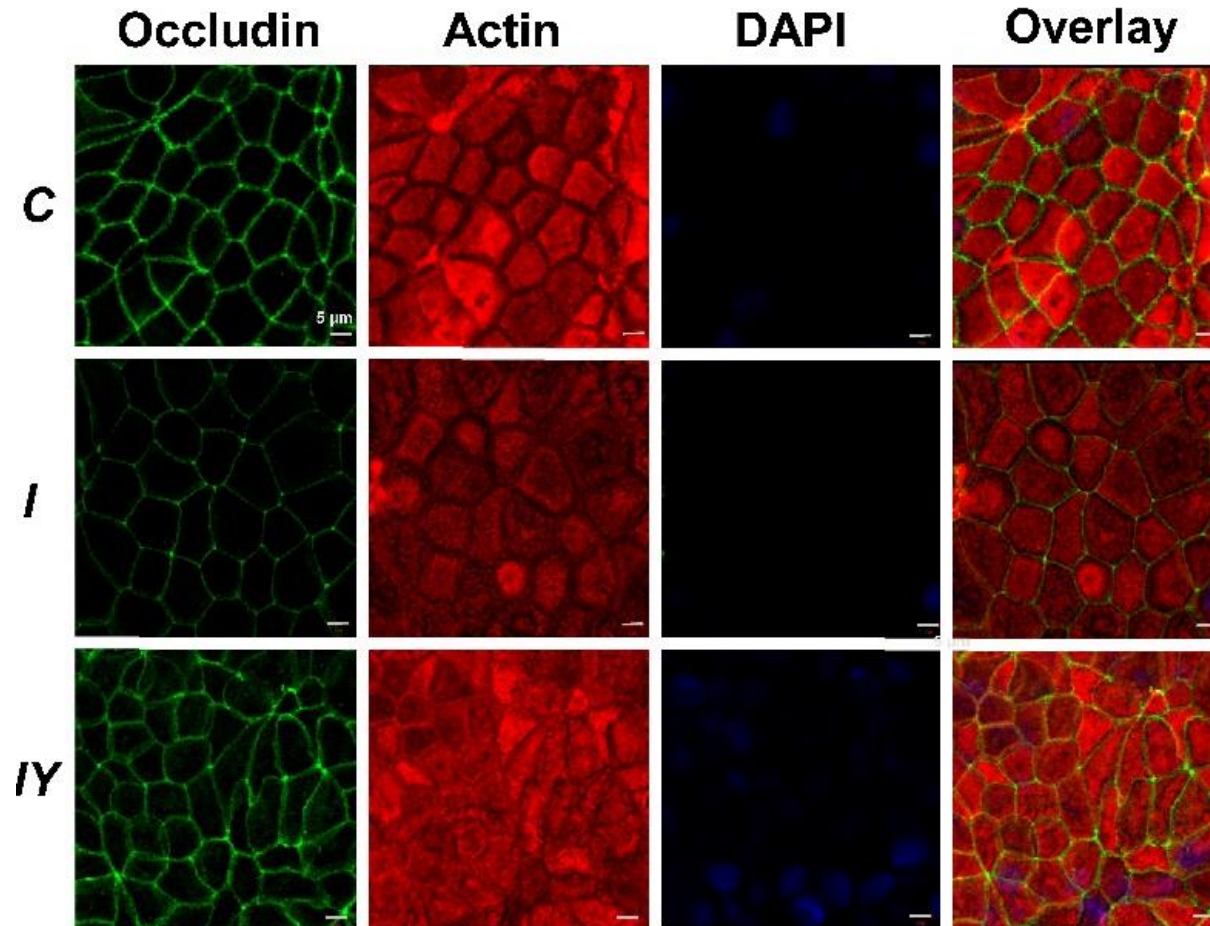
IC



Inflammatory cocktail (IC)
+ TNF- α , IFN- γ , IL-1 β L, PS

Lyophilized yogurt powder retains capacity to inhibit barrier disruption of Caco-2 cells by inflammatory cytokines. Yogurt powder was tested at 30 mg/mL after >3 y storage at -20°C. Inflammatory cocktail consisted of TNF- α , IL-1 β , and IFN- γ at concentrations previously described (Putt et al., 2016). TEER was measured by CellZScope (nanoAnalytics). Data are means \pm SEMs, $n = 6$ per group. $P < 0.0001$ for time, treatment and interaction by two-way repeated measures ANOVA.

Yogurt Prevents Loss of Tight Junctions in Inflamed Caco-2 Cells



[NCT04149418] Evaluating gut-based mechanisms of health promotion

- Treg/Th17 profiles after yogurt consumption (cross-over design)
- Gut microbiota
- Microbial metabolites
- Gut barrier function

Mechanistic studies

- Bioactive metabolites in yogurt during proteolysis
- Impact of fermentation, digestion
- Modulation of LPS binding protein



Summary and conclusions

- The gut mediates the beneficial actions of nutrients and bioactives.
- Diet mediates immune health, more information needed on mechanisms from specific foods.
- Healthful dietary patterns include dairy.
- Certain foods might modestly reduce biomarkers of inflammation, but more work is needed to confirm importance with chronic disease risk.



Acknowledgment

Collaborators

Richard Bruno
Heather White

Grad Students

Ruisong Pei (PhD)
Kelley Putt
Diana DiMarco
Derek Martin

Undergraduates

Yiming Chen
QinLei Gu

Research Support

National Dairy Council
USDA HATCH WIS02094
UW-Madison Dept. Food Science
UW Dairy Innovation Hub

Contact:

Bradley Bolling
A103B Babcock Hall
1605 Linden Dr, Madison, WI
608-890-0212
bwbolling@wisc.edu

Sharing Science-Based Messages with Gen Z Clients

Presented by Toby Amidor, MS, RD, CDN, FAND



AMERICAN DAIRY
ASSOCIATION NORTH
EAST

Focusing on Gen Z Pays Off

Brands that make the connection with this remarkable generation drive, on average, 14x greater dollar growth opportunity versus other generations

**Based on sales of New Product Pacesetter/Rising Stars products included in the report.*



Immunity

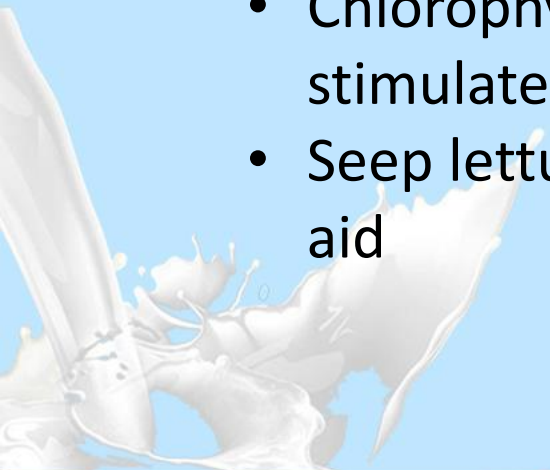


Immunity

Consumers are looking for food and supplements to help improve strength and immunity.

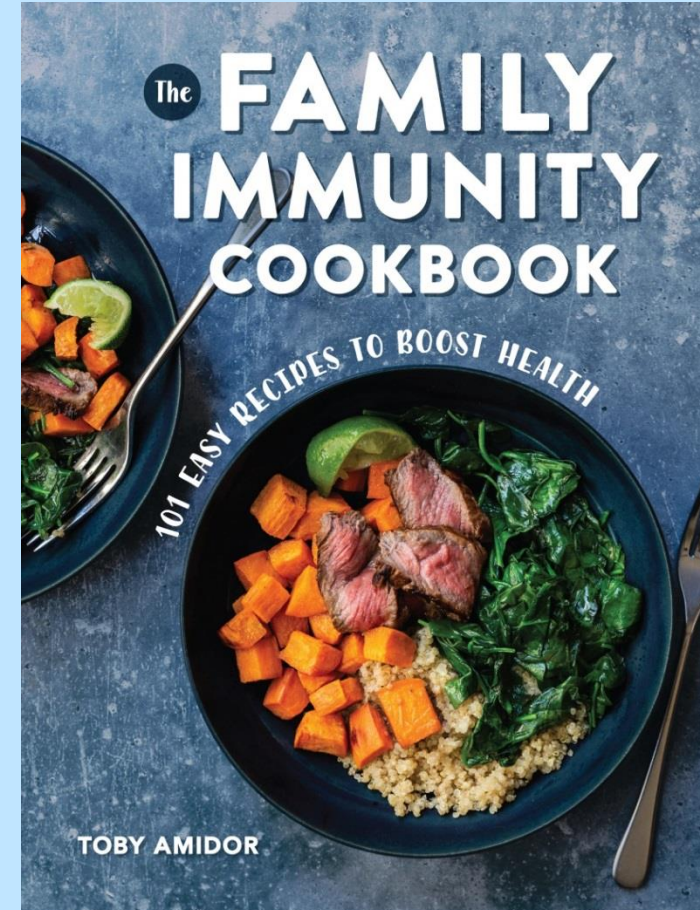
Many fads emerging on social media

- Garlic clove in the nostrils to help alleviate cold and clear sinuses
- Chlorophyll in water to help stimulate the immune system
- Seep lettuce in water as a sleep aid



How to Discuss Immunity with Clients

- Eat an overall healthy diet with lots of fruits, veggies, and milk and dairy foods (MyPlate)
- Can include foods that provide nutrients that the immune system uses:
 - *Zinc*: wound healing
 - *Selenium*: Protects the body from chronic inflammation and infection
 - *Yogurt*: Probiotics which can help keep the immune system healthy



Meeting Consumer Interest



Cognition



Immunity



Inflammation



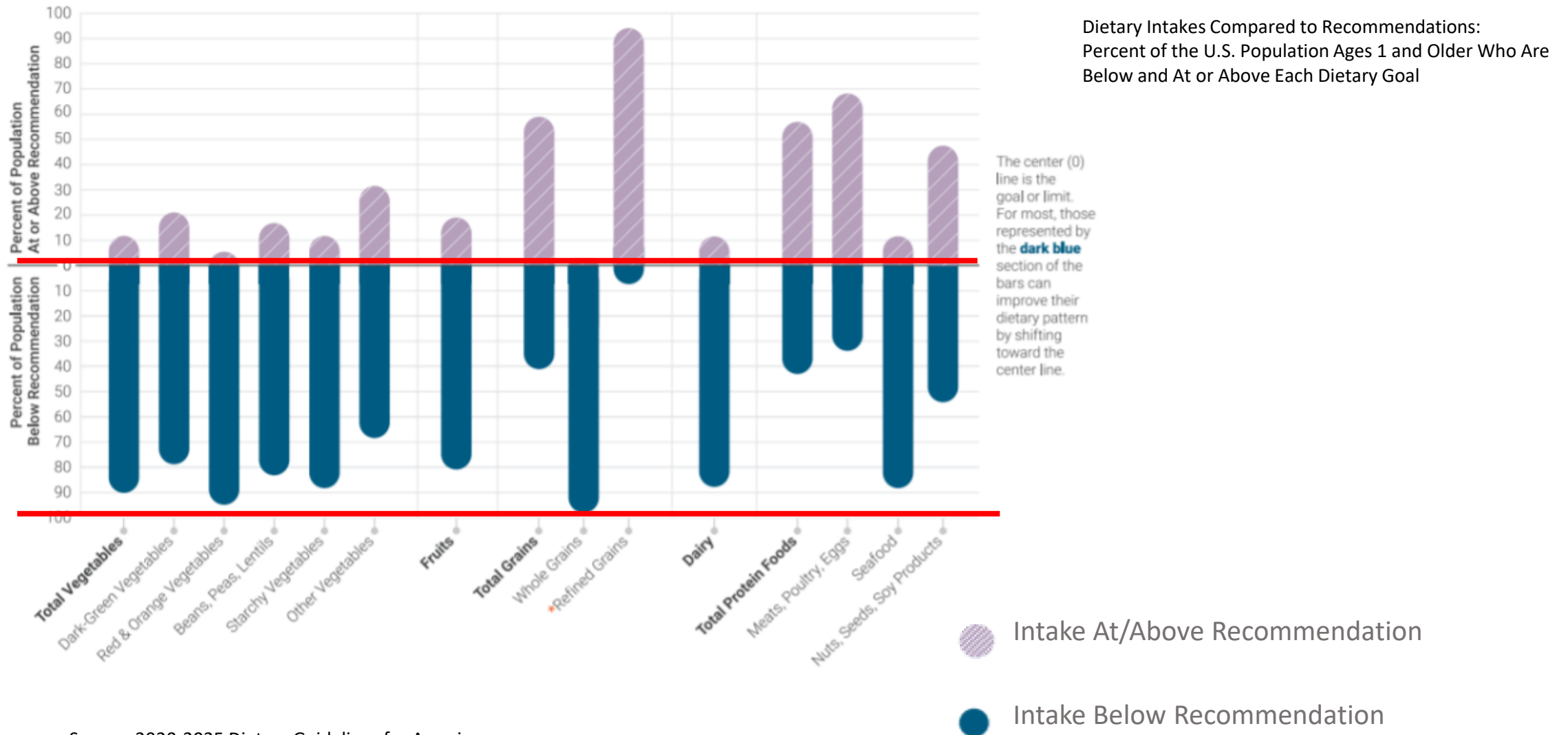
	CALCIUM	25% DAILY VALUE		PROTEIN	16% DAILY VALUE
Helps build and maintain strong bones and teeth.			Helps build and repair tissue. Helps maintain a healthy immune system.		
	VITAMIN D	15% DAILY VALUE		PHOSPHORUS	20% DAILY VALUE
Helps build and maintain strong bones and teeth. Helps maintain a healthy immune system.			Helps build and maintain strong bones and teeth, supports tissue growth.		
	VITAMIN A	15% DAILY VALUE		RIBOFLAVIN	30% DAILY VALUE
Helps keep skin and eyes healthy; helps promote growth. Helps maintain a healthy immune system.			Helps your body use carbohydrates, fats and protein for fuel.		
	VITAMIN B12	50% DAILY VALUE		PANTOTHENIC ACID	20% DAILY VALUE
Helps with normal blood function, helps keep the nervous system healthy.			Helps your body use carbohydrates, fats and protein for fuel.		
	NIACIN	15% DAILY VALUE		ZINC	10% DAILY VALUE
Used in energy metabolism in the body.			Helps maintain a healthy immune system, helps support normal growth and development and helps maintain healthy skin.		
	SELENIUM	10% DAILY VALUE		IODINE	60% DAILY VALUE
Helps maintain a healthy immune system, helps regulate metabolism and helps protect healthy cells from damage.			Necessary for proper bone and brain development during pregnancy and infancy; linked to cognitive function in childhood.		
	POTASSIUM*	10% DRI			
Helps maintain a healthy blood pressure and supports heart health. Helps regulate body fluid balance and helps maintain normal muscle function.					

The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



Source: USDA FoodData Central online at <https://fdc.nal.usda.gov/>. Mean values calculated from database entries across all fat levels of plain vitamin D-fortified fluid milk in Legacy, Foundation, and Survey (FNDDS) data sources.

Most Americans are Falling Short on Dairy, Fruits and Vegetable Recommendations



Source: 2020-2025 Dietary Guidelines for Americans

Dairy Foods and Immune Important Nutrients

Immunity-important Nutrients

Protein (Milk, Cheese, Yogurt)

Selenium (Milk)

Zinc (Milk, Yogurt)

Vitamins

- **A** (Fruits, Vegetables)
- **B6** (Fruits, Vegetables)
- **C** (Fruits, Vegetables)
- **D** (Milk)
- **E** (Nuts, Seeds)



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.

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.

What About “Plant Based”?



- No formal definition to the term “plant-based”
- Health professionals have described plant-based as:
 - Strict vegan eating
 - A vegetarian diet
 - A diet that includes “some” animal foods
 - “Flexitarian”
 - “Plant forward”



Including Milk & Dairy With Plant Foods



Increasing Plant Based Foods or Dairy Foods Differentially Affects Nutrient Intakes: Dietary Scenarios Using NHANES 2007–2010

Christopher J. Cifelli ^{1,*} , Jenny A. Houchins ¹ , Elieke Demmer ¹  and Victor L. Fulgoni ² 

**NHANES Modeling Study
N=17,387, ≥ 2 years**

Modeling Scenario	Improved Intakes	Insufficient Intakes
Double usually consumed plant-based foods	<ul style="list-style-type: none">• Magnesium• Iron• Folate• Vitamin C• Vitamin E	<ul style="list-style-type: none">• Calcium*• Vitamin D*• Vitamin A• Protein
Double milk, cheese, yogurt	<ul style="list-style-type: none">• Calcium*• Vitamin D*• Vitamin A	

* = Nutrient of Public Health Concern

“Specific recommendations to increase low fat and nonfat dairy foods in conjunction to increasing healthy plant-based foods will help to close some of the nutrient gaps currently present among Americans of all ages.”

Healthy Immunity Recipes



Strawberry-Kiwi Almond Yogurt Bark



Green Tea Smoothie Bowl with Raspberries

Healthy Immunity Recipes

CHOCOLATE RASPBERRY SMOOTHIE BOWL

Serves: 2
Prep Time: 5 minutes

SEE ALL REVIEWS


PRINT RECIPE I MADE IT!

Buy ingredients online
10983, Scarsdale, New York [Change](#)
[Choose a supermarket](#)

Save recipes
Save your recipes, Meal Plan and more
[Save recipe](#)

Recipe box

Powered by [Whisk](#)



GREEN SMOOTHIE BOWL

Serves: 1
Prep Time: 10 minutes

SEE ALL REVIEWS


PRINT RECIPE I MADE IT!

Buy ingredients online
10583, Scarsdale, New York [Change](#)
[Choose a supermarket](#)

Save recipes
Save your recipes, Meal Plan and more
[Save recipe](#)

Recipe box

Powered by [Whisk](#)



Showcasing the Superfood Power Couple

SMOOTHIE ADVENTURE



LIQUID	PROTEIN	FRUIT MIX-IN	VEGG MIX-IN
CHOOSE 1 OR A MIX	CHOOSE 1	MAX 1 CUP	CHOOSE 1-2
MILK KEFIR COLD BREW ICED COFFEE	YOGURT COTTAGE CHEESE RICOTTA CHEESE WHEY PROTEIN	APPLES AVOCADO BANANA BERRIES (BLUEBERRIES, STRAWBERRIES, RASPBERRIES)	SPINACH KALE PUMPKIN PUREE COOKED SWEET POTAT

GRAIN BOWL ADVENTURE



GRAIN BASE	VEGGIE TOPPER	FRUIT TOPPER	DAIRY TOPPER	PROTEIN TOPPER
CHOOSE 1 OR A MIX	UNLIMITED (RAW, STEAMED, ROASTED)	CHOOSE 1 OF 2	CHOOSE 1	CHOOSE 1-2
BROWN RICE QUINOA FARRO SORGHUM	CARROTS CUCUMBERS PEPPERS JALAPEÑOS	BERRIES (BLUEBERRIES, STRAWBERRIES, RASPBERRIES) ORANGE SLICES GRAPEFRUIT	SHREDDED CHEDDAR MINI MOZZARELLA BALLS OR SLICES	CHICKEN TUNA SALMON SHRIMP

SALAD ADVENTURE



GREEN BASE	VEGGIE TOPPER	FRUIT TOPPER	DAIRY TOPPER	PROTEIN TOPPER	DRESSING
CHOOSE 1 OR A MIX	UNLIMITED OPTIONS	CHOOSE 1 OF 2	CHOOSE 1	CHOOSE 1	CHOOSE 1
ROMAINE MESCLUN GREENS SPINACH KALE ARUGULA SHAVED FENNEL	CARROTS CUCUMBERS PEPPERS BROCCOLI CAULIFLOWER MUSHROOMS	BERRIES (BLUEBERRIES, STRAWBERRIES, RASPBERRIES) ORANGE SLICES GRAPEFRUIT MANDARIN APPLES	SHREDDED CHEDDAR MINI MOZZARELLA BALLS OR SLICES CHEDDAR JACK OR MONTEREY JACK CHEESE	CHICKEN TUNA SALMON SHRIMP STEAK EGGS	OIL & VINEGAR ITALIAN DRESSING GREEN GODDESS PARMESAN VINAIGRETTE YOGURT

[American Dairy Association North East, Mandy Enright MS, RDN, RYT, Choose Your Own Adventure with Dairy and Plants](#)

Can Dairy Boost The Immune System?

Article • Video • July 23, 2021

Eating dairy foods as part of an overall healthy diet is one way to get some of the important nutrients you need for normal immune function.



The immune system is like the body's department of defense – it protects your body from attack. So when you hear people say they want to increase or boost their immunity, what they're likely saying is how can I help keep my immune system as healthy as possible to lower my risk of getting a cold, the flu or something more severe like COVID-19.

Discuss Lifestyle Factors That May contribute to Stress and affect immunity

- **Hydration**
 - Mild dehydration can affect mood
- **Proper sleep**
 - Poor sleep linked to reduced psychological well-being
- **Regular Exercise**
 - Can help increase feel good hormones
- **Alcohol in Moderation**
 - Overconsumption can hinder immune system
- **Manage Stress Properly**
 - Meal prepping, meal planning, freezer-friendly meals, one-pot meals
 - Seek professional help

Calm



Feelings of Calm

Keep Messaging Simple

- When life has you stressed, reset yourself with dairy. Its simple nutrition is good for your body.
- Create a moment of calm in the morning with milk. It's delicious and good for your body.
- Wind down after a long day and reset yourself with dairy. It's good for the body and tastes great.



Milk and Calm

- Very little peer reviewed nutrition research
- For some people having a warm beverage at night can help them unwind, etc. (milk can be a part of this like warm milk, decaf tea or coffee with milk, golden milk, etc.).
- Milk and dairy and other healthy foods can be part of consumers relaxing, unwinding, and destressing holistic routines.



Moon Milk

- Moon Milk blends adaptogens, herbs, and spices to promote wellbeing and relaxation



<https://cloversonoma.com>



Moon Milk Recipes

THE MAGIC OF MOON MILK FOR RESTFUL SLEEP

You don't have to believe in magic to believe in the magic of moon milk when it comes to getting a good night's sleep. Sleep is a vital component of a person's overall health, which is why it's always advised to get a certain amount of ZZZ's every night, but sometimes it's easier said than done. That's where moon milk comes in...



<https://savorrecipes.com/the-magic-of-moon-milk-for-restful-sleep/>

MOON MILK

24 MADE THIS RECIPE

Serves: 1

Prep Time: 5 minutes

Cook Time: 10 minutes

[SEE ALL RECIPES](#)

PRINT RECIPE

1 VIDEO (3)

Save recipes

Save your recipes, Meal Plan and more

Save recipe

Powered by [Whisk](#)



<https://savorrecipes.com/recipe/moon-milk/?skip=0>

Educational Handout

UNWIND TIME

Do's & Don'ts

DON'TS!

- Bring your laptop, cell phone, or tablet to bed with you.
- Be available and responsive 24 hours to people outside your home or family.
- Check email or social media right before bed.
- Procrastinate to do your most stressful or intense work at the end of the day.
- Watch TV to fall asleep.
- Read books, magazines, or articles on electronic devices before bed.
- Have a large, high fat or spicy meal before bed.
- Eat foods high in refined sugars or sodium at night.
- Drink caffeinated beverages late in the day or with dinner.
- Do strenuous or vigorous workouts late in the day or right before bed.
- Be dehydrated -drink water throughout the day.
- Go to bed angry or upset -have an outlet like journaling or talking to someone.

*BEST FOODS TO STOCK
UP ON FOR SLEEP*

GROCERY SHOPPING GUIDE

<p>DAIRY-RICH FOODS CONTAINS TRYPTOPHAN, VITAMIN D & CALCIUM, WHICH HELP TO PRODUCE MELATONIN</p> <p>MILK YOGURT CHEESE COTTAGE CHEESE</p>	<p>PROTEIN-RICH FOODS GREAT SOURCE OF TRYPTOPHAN TO PRODUCE SEROTONIN AND MELATONIN</p> <p>TURKEY EGGS CHICK PEAS HUMMUS</p> <p>BEAN DIPS TOFU EDAMAME</p>
<p>FATTY FISH CONTAINS OMEGA-3S & VITAMIN D THAT HELP REDUCE INFLAMMATION & WHILE BOOSTING SEROTONIN</p> <p>SALMON (fillets, canned, packets) TUNA (fillets, canned, packets) TROUT</p>	<p>NUTS & SEEDS CONTAINS HIGH LEVELS OF MELATONIN AND TRYPTOPHAN</p> <p>WALNUTS ALMONDS FLAXSEEDS</p> <p>CHIA SEEDS PUMPKIN SEEDS</p>
<p>FRUITS CONTAINS HIGH LEVELS OF MELATONIN, TRYPTOPHAN & MAGNESIUM, WHICH CAUSES MUSCLES TO RELAX & INFLAMMATION BUSTING ANTIOXIDANTS</p> <p>KIWI BANANAS PINEAPPLE</p> <p>ORANGE TART CHERRY JUICE</p>	<p>LEAFY GREENS CONTAINS TRYPTOPHAN, MELATONIN & SEDATIVE PROPERTIES WHILE ALSO FIGHTING INFLAMMATION</p> <p>MIXED GREENS LETTUCE KALE SPINACH</p>
<p>STARCHY CARBS HIGH-GLYCEMIC CARBS HELP UNLOCK TRYPTOPHAN AND BRING ON SLEEPINESS QUICKER</p> <p>WHITE RICE OATMEAL RICE OR CORN BASED CEREAL (avoid high sugar)</p> <p>BREAD CRACKERS</p>	<p>PANTRY STAPLES KEEPING THESE ITEMS ON HAND CAN HELP INDUCE SLEEP</p> <p>CHAMOMILE TEA (relaxes nerves and mild sedative) HONEY (helps unlock tryptophan to produce sleep hormones)</p>

Protein & Sustained Energy



Energy: Simple Messaging



PROTEIN

- Milk helps you fuel up without the crash. It's a simple, easy source of protein when you need to stay energized.
- Dragging? Take a moment, reset yourself with dairy, and keep going.
- Get after it with dairy. As a natural source of protein, dairy provides the pick-me-up you need to go all out.

Protein-Rich Dinners

Mansaf (LAMB STEWED IN YOGURT)

Serves: 4
Prep Time: 45 minutes
Cook Time: 2 hours 15 minutes

[SEE ALL REVIEWS](#)

PRINT RECIPE

I MADE IT

Save recipes

Save your recipes, Meal Plan and more

Save recipe

Powered by [Whisk](#)



CHEESY POBLANO ASADA TACOS

3 MADE THIS RECIPE

Serves: 4
Prep Time: 40 minutes
Cook Time: 12 minutes

[SEE ALL REVIEWS](#)

PRINT RECIPE

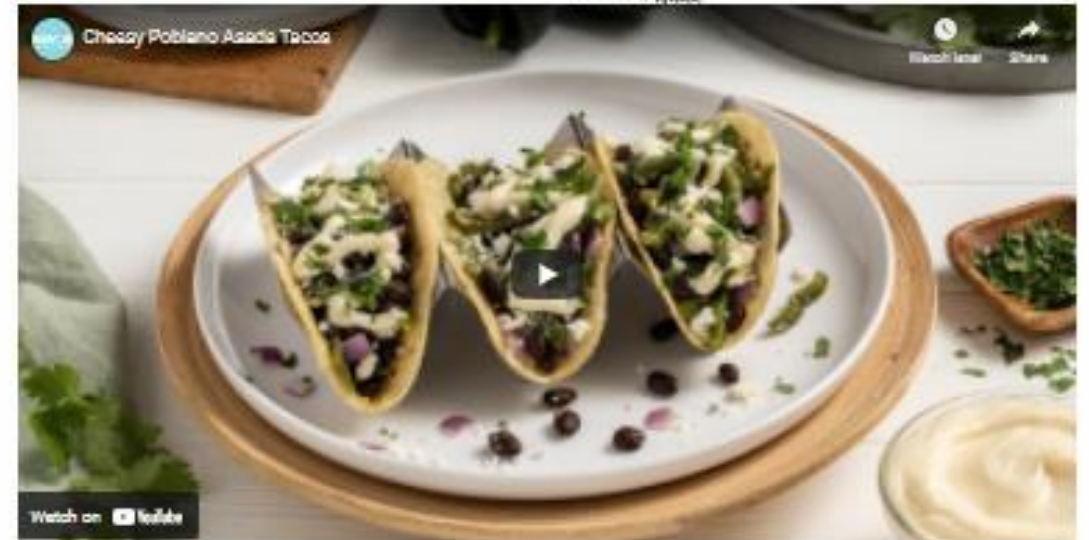
I MADE IT

Save recipes

Save your recipes, Meal Plan and more

Save recipe

Powered by [Whisk](#)



Protein-Rich Dinners

SPAGHETTI SQUASH CASSEROLE

Serves: 8
Prep Time: 15 minutes
Cook Time: 1 hour

[SEE ALL REVIEWS](#)

[PRINT RECIPE](#)

[I MADE IT!](#)

Save recipes
Save your recipes, MealPlan and more

[Save recipe](#)

Powered by [Whisk](#)



PHILLY CHEESESTEAK K SKEWERS

Serves: 4
Prep Time: 7 minutes
Cook Time: 10 minutes

[SEE ALL REVIEWS](#)

[PRINT RECIPE](#)

[I MADE IT!](#)

Save recipes
Save your recipes, MealPlan and more

[Save recipe](#)

Powered by [Whisk](#)



Digestive Health



Gen Z and Digestive Health



- Gen Z values gut health and all things promoting gut health.
- They are willing to try any and all products that feature this health claim.
- Example: Yogurt and “good bacteria” (probiotics)

Source: Dairy Management, Inc. Deep Dive Into Gen Z: Uncovering Consumer Jobs to be Done Across Prioritized Needstates (The Garage Group, April 2021)



Gen Z and Digestive Health Messaging

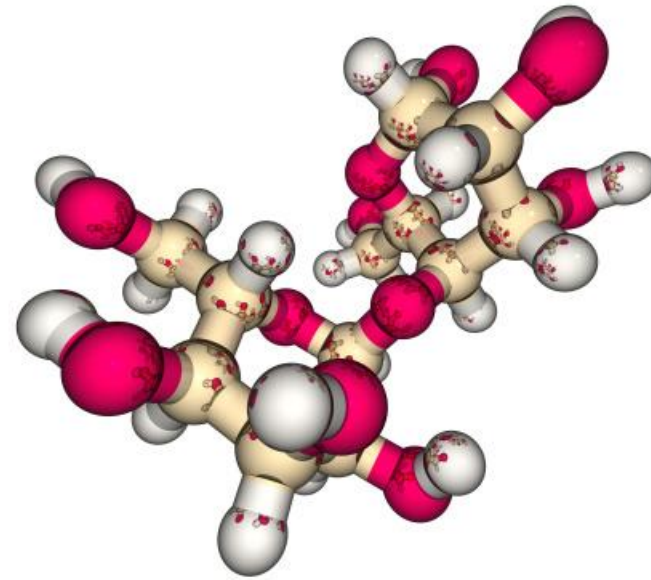
- Be good to your digestive system. Yogurt is linked to better digestion and a healthy immune system.
- Being comfortable makes you feel better and perform better. Grab yogurt before your next activity. It's linked to better digestive health.
- Yogurt is linked to improved digestive health. So reset yourself and show your gut some love when you start your day with yogurt.

Source: Undenably Dairy – 2022 Communications Overview and Messaging, *The Next Generation Consumer*



Lactose Intolerance

- GI disturbances that may be experienced following intake of an amount of lactose greater than the body's ability to absorb it



Common Symptoms of Lactose Intolerance

- Symptoms vary on the individual and may include:
 - Gas/flatulence
 - Bloating
 - Abdominal pain
 - Diarrhea
- Symptoms following lactose consumption vary based on:
 - Level of lactase enzyme activity
 - Gastric emptying rates
 - Fecal bacterial metabolites
 - Colonic mucosal absorptive capacity
 - Intestinal transit time
- Severity of LI discomfort differ:
 - Perception of abdominal pain
 - Psychological impact of pain
 - Perceived social discomfort



Recommendations for Management

- The National Institute of Health (NIH)
Expert panel suggests that adults & adolescents diagnosed with LI can tolerate ~12 g of lactose in a single dose = 1 cup of milk or yogurt
- NMA & NIH
Expert panel recommend folks with lactose intolerance try to keep dairy foods in their diet



Amount of Lactose in Common Dairy Foods

Product	Lactose (grams)
Lactose- Free Milk, low-fat, lactose-free (1 cup)	0
Cheddar Cheese, sharp (1 oz)	<0.1
Swiss Cheese, Cheddar Cheese (sharp), Mozzarella (1 oz)	<0.1
American Cheese, pasteurized, processed (1 oz)	1
Cottage Cheese (1/2 cup)	3
Yogurt, Greek-style (6 oz)	4
Ice Cream (1/2 cup)	4
Butter (1 tablespoon)	0.01
Whole, 2%, 1%, Skim Dairy Milk (1 cup)	12
Yogurt, low-fat (6 oz)	13



Strategies for Dietary Management



- *Slice It*

- Top sandwiches/crackers with natural cheeses
- Cheddar, Colby, Monterey Jack, Swiss, mozzarella

- *Shred It*

- Shred natural cheeses onto veggies, pastas, salads, soups

- *Spoon It*

- Enjoy yogurt (Greek, plain, flavored).
- Its live and active cultures help digest lactose

- *Try It*

- Opt for lactose-free dairy & milk products

- *Sip It*

- Start with small amounts of milk daily
- Increase slowly over several days/weeks

- *Stir It*

- Mix milk with other foods to help slow digestion
- Allows the body more time to digest lactose

Lactose-Free Dairy Products

- Milk
 - low fat, fat free, low fat chocolate, half-and-half
- Ice cream
- Cottage cheese
- Yogurt
- Eggnog



How Is Lactose-Free Dairy Milk Made?

- A natural lactase enzyme is added to help breakdown lactose into its monosaccharide components
- May have a slightly sweeter taste due to the process of breaking down the sugars



Lactose Free ≠ Dairy Free

- Lactose-free milk/dairy are made from cow's milk
- Lactose-free dairy provides the same essential nutrients as traditional dairy products
- Cooks just like cow's milk
 - Puddings
 - Oatmeal



Lactose Intolerant-Friendly Dairy Foods

- The amount of lactose varies in dairy foods (milk, yogurt, cheese)
- Lower lactose foods include Greek yogurt, cottage cheese, Swiss cheese, mozzarella
- Greek and traditional yogurt contain live and active cultures to help digest yogurt



Lactose-Intolerant Friendly Recipes

**Lemon-Blueberry
Stuffed French Toast**



Salad Parfait



**Baked Artichoke Dip
with Fontina Cheese**



Polling Question #2



Dietary Guidelines and Dairy

Other than soy, plant-based beverages not recommended.

“For individuals who choose dairy alternatives, fortified soy beverage (commonly known as “soy milk”) and soy yogurt – which are fortified with Ca+, vit A, and vit D – are included as part of the dairy group because they are similar to milk and yogurt based on nutrient composition and in their use in meals.”

Daily Recommendation					
Children	2-3 yrs	2 cups	Women	19-30 yrs	3 cups
	4-8 yrs	2½ cups		31-50 yrs	3 cups
Girls	9-13 yrs	3 cups		51+ yrs	3 cups
	14-18 yrs	3 cups	Men	19-30 yrs	3 cups
Boys	9-13 yrs	3 cups		31-50 yrs	3 cups
	14-18 yrs	3 cups		51+ yrs	3 cups

Myplate.gov



Targeting Gen Z



Targeting Gen Z

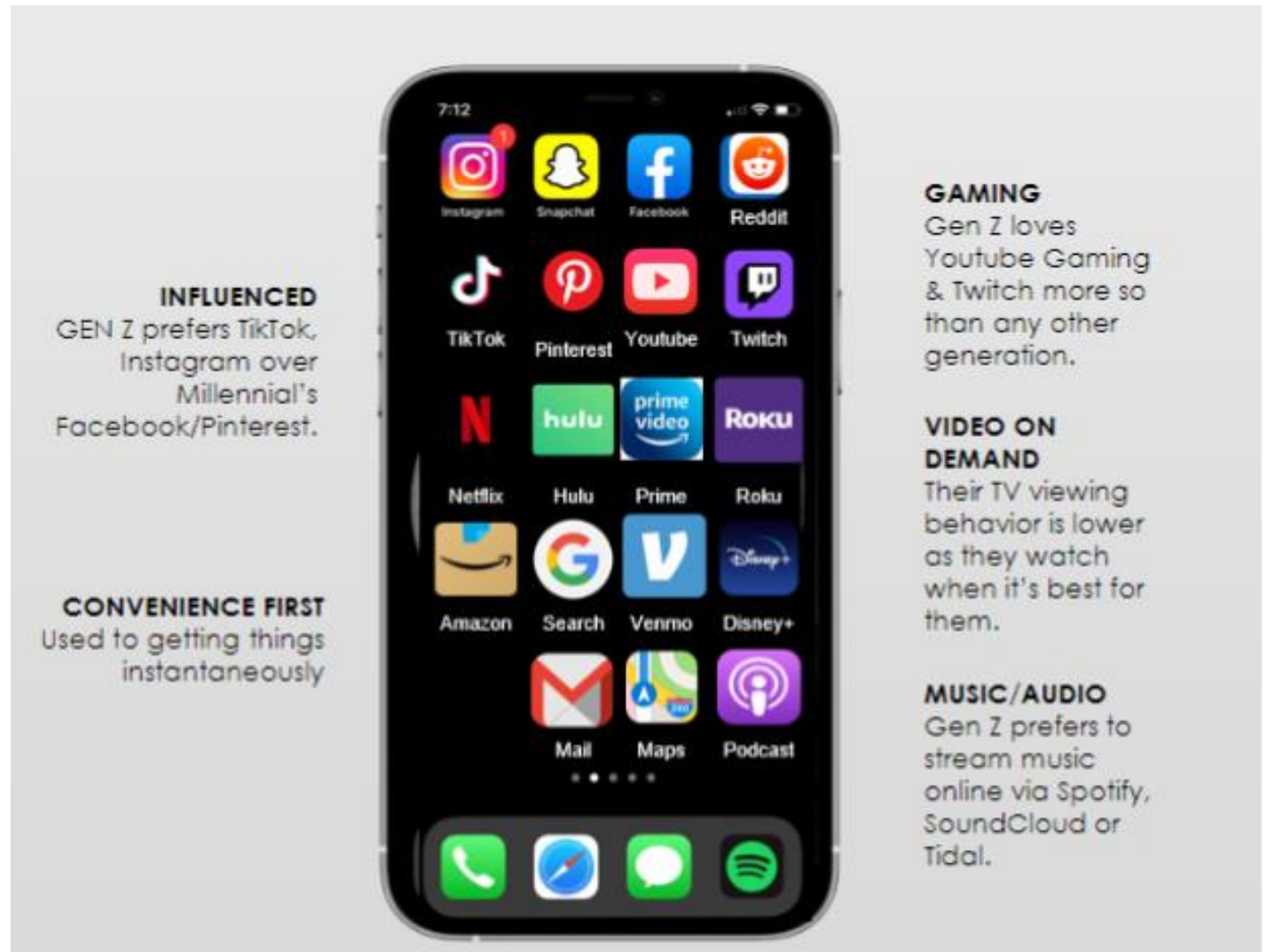
Gen Z as digital natives consume media differently than other targets; these channel insights will lead us to different tactics and platforms to reach them.

- They're informed, but not through print. They consume fewer newspapers and magazines than the general population. They get their information through the internet and social media, spending more time there than any generation before them –about 40 hours per week for internet and 23.3 for social media.
- They integrate seamlessly through online and “IRL,” meaning we need to think about reaching them in the same way.



Targeting Gen Z

- Immunity
 - Calm
- Sustained Energy/Protein
- Digestive Health



How to Communicate with GenZ

One of the most relevant and authentic ways to reach Gen Z is through social media influencers.

- In fact, more than half of Gen Z and Millennials admit to purchasing a product they saw an influencer talking about.



How to Communicate with Gen Z?

- Lead with emotion first and logic second
- Use their voice, not ours
- Multicultural/diversity must be the lens we use for everything
- Best way to the heart is through the stomach

- Video
- Apps
- Gaming



Questions?



Liz Jalkiewicz, RDN, LDN

Tel: 267-414-3158

Email: ejalkiewicz@milk4u.org

Website:

<https://www.americandairy.com/>

Bradley W. Bolling, PhD

Tel: 608-890-0212

Email: bwbolling@wisc.edu

Research group website:

<https://bolling.foodsci.wisc.edu/>

Toby Amidor, MS, RD, CDN, FAND

FB – Toby Amidor Nutrition

Instagram - @tobyamidor

Twitter - @tobyamidor

Email: toby@tobyamidornutrition.com

Visit Us

AmericanDairy.com

- ✓ Recording
- ✓ Slide Deck
- ✓ Continuing Education Credits
 - ❑ CME Certificate
 - ❑ CPEU Certificate
 - ❑ Professional Development Certificate
- ✓ Additional Educational Resources
- ✓ Webinar Library



AMERICAN DAIRY
ASSOCIATION NORTH
EAST

