

SNACK SMART

Making Every Bite Count
With Plant-Packed Pairings

PRODUCE FOR®
BETTER HEALTH
FOUNDATION





WENDY REINHARDT KAPSAK, MS, RDN

**PRESIDENT & CEO
PRODUCE FOR BETTER HEALTH FOUNDATION**

MODERATOR

ABOUT PBH



OUR PURPOSE

The Produce for Better Health Foundation (PBH), a 501(c)3, is the only national non-profit organization 100% dedicated to helping people live happier, healthier lives by eating and enjoying more fruits and vegetables, in every form, each and every day.

PBH, along with its strategic partners, will elevate new fruit and vegetable consumption behaviors as a national priority – *accelerating growth and serving the public good.*



THE AWARD-WINNING HAVE A PLANT® MOVEMENT REACHES MILLIONS

The award-winning **Have A Plant® Movement** is a way to inspire lasting behavior change by tapping into the emotional connection consumers have to the fruit and vegetable eating experience.

PBH is an undeniable resource for health & wellness professionals, given its trusted third-party credibility, breadth of nutrition and behavioral research, and strong consumer, influencer and industry reach.



500 Million
social media
impressions

700 Million
traditional media
impressions



Have a Plant®: The Plant-Forward Eating Guide

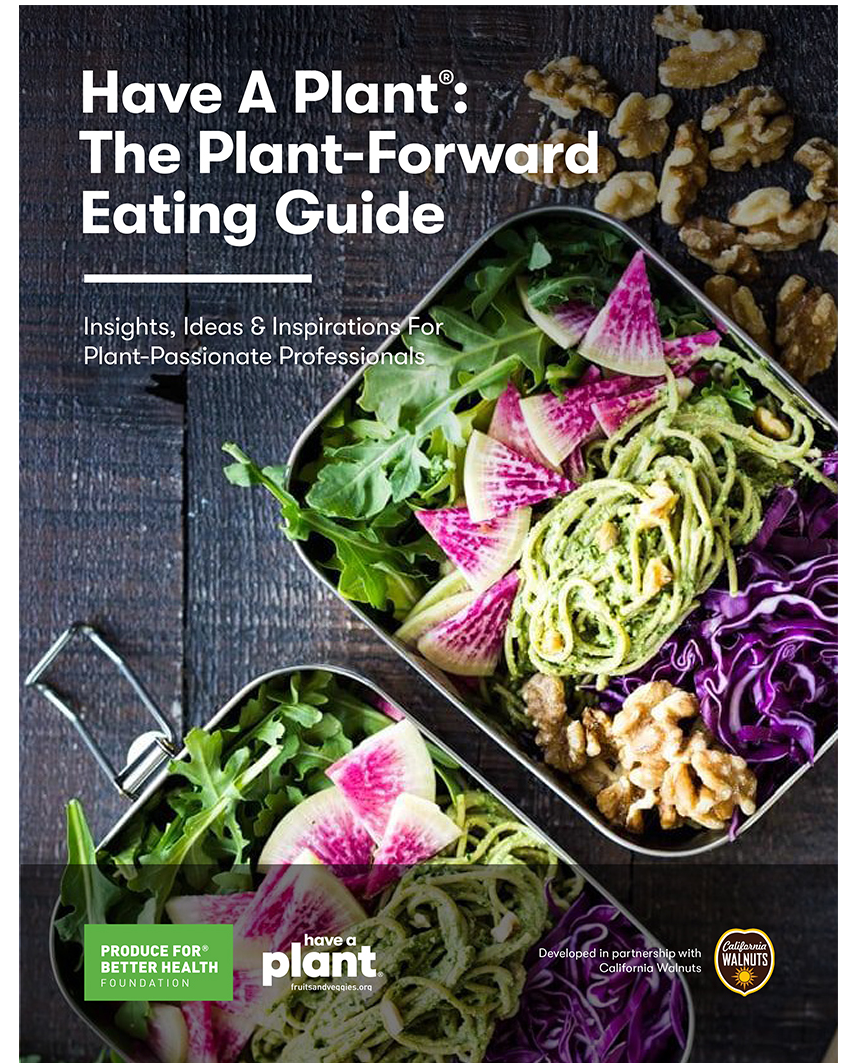
*Insights, Ideas & Inspirations for
Plant-Passionate Professionals*

Find the guide at:

www.fruitsandveggies.org/plantforwardguide

Turnkey resources are also available to put
your plans into action at:

www.fruitsandveggies.org/plantforwardtoolkit



The 2020 PBH State Of The Plate Research Toolkit Provides Health & Wellness Professionals With Helpful Resources.

PUBLIC TOOLKIT

PBH State Of The Plate Research Toolkit with executive summary, key messages, consumer marketing and social media assets as well as activation ideas

[fruitsandveggies.org/
stateoftheplatetoolkit](https://fruitsandveggies.org/stateoftheplatetoolkit)



Fruits & Veggies

Stories

Recipes

Expert Advice

State Of The Plate

PBH[®]

FOUNDATION

STATE OF THE PLATE

2020 PBH State Of The Plate Toolkit

The results are in. As a society, we are chronic underachievers at eating our fruits and veggies and, subsequently, we are short-changing the health and well-being of generations of Americans. In 2020, PBH commissioned an update to our trended fruit and vegetable consumption research. Sadly, the news is not as encouraging as we would hope. America's fruit and vegetable consumption continues to erode over time. We must act NOW to reverse this trend.

We owe it to Americans to help them easily eat, enjoy and maybe even love more fruits and vegetables for improved health and happiness. Please use the resources and insights at the links below to join us in making a new era of conscious consumption a reality! #haveaplant

2020 PBH State Of The Plate Executive Summary
Additional access to the PBH 2020 State of the Plate research is exclusive to PBH members and **Lead The Change** supporters. Send us an **email** to request access.

Key Messages & Supporting Data Points
[\[pdf\]](#) [\[docx\]](#)

Frequently Asked Questions

Sample Social Media Posts
[\[pdf\]](#) [\[docx\]](#)

Digital & Social Media Graphics

View Official 2020 PBH State of the Plate Press Release

Sample Media Pitch
[\[pdf\]](#) [\[docx\]](#)

Activation Ideas
[\[pdf\]](#) [\[docx\]](#)

Solutions To Help Americans Easily Enjoy More Fruits & Vegetables

Start With Fruits & Veggies

Make a habit of eating a fruit or veggie first during at least 1 meal each day.

Have A Plan, Have A Plant[®]

Map your meals and snacks, making fruits and veggies the stars.

Count All Forms

Mix up fresh, frozen, dried, canned and 100% juice.

Make The Doing Easy

Keep it simple and pair 1 more fruit or vegetable with a fave food each day.

Hit Repeat

Consistent repetition will turn consciously eating more

IF YOU LIKED IT THEN YOU SHOULD PUT A RING ON IT

plant

Housekeeping



1 CPEU available through the Commission on Dietetic Registration (CDR)

You will receive a link to the certificate of attendance, the webinar recording and PDF of the presentation.

Type your questions and/or comments into the Q&A section located at the bottom of your screen at any time during the webinar.

TODAY'S SPEAKERS



Heather Leidy, PhD
Associate Professor
University of Texas at Austin



Kathleen Zelman, MPH, RDN, LD
Owner
No Nonsense Nutrition

The Benefits of Plant-Powered Snacks to Promote Diet Quality and Health



Heather Leidy, PhD

Associate Professor

Dept. Nutritional Sciences

Dept of Pediatrics – Dell Med

University of Texas at Austin

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Health Across the Lifespan

Establishing
Healthy Lifestyles



Optimizing
Healthy Lifestyles



Preserving
Healthy Lifestyles

**Healthy
Dietary Pattern**



Healthy Dietary Patterns

Healthy, Plant-based



Dietary Pattern

Across life-stages, greater adherence to a high-quality diet:

Lowers Risk of
All-cause mortality
Cardiovascular
Disease
Type 2 Diabetes
Obesity
Bone Health
(Some) Cancers

Core Components to Include:

- Fruits
- Vegetables/Legumes
- Whole Grains
- Low/Non-fat Dairy
- Unsaturated Vegetable Oils
- Protein-rich foods:
 - *Fish/Seafood*
 - *Beans/Peas/Lentils*
 - *Nuts/Seeds/Soy*
 - *Lean Meats/Poultry/Eggs*

Healthy Dietary Patterns

Healthy, Plant-based



Dietary Pattern

Across life-stages, greater adherence to a high-quality diet:

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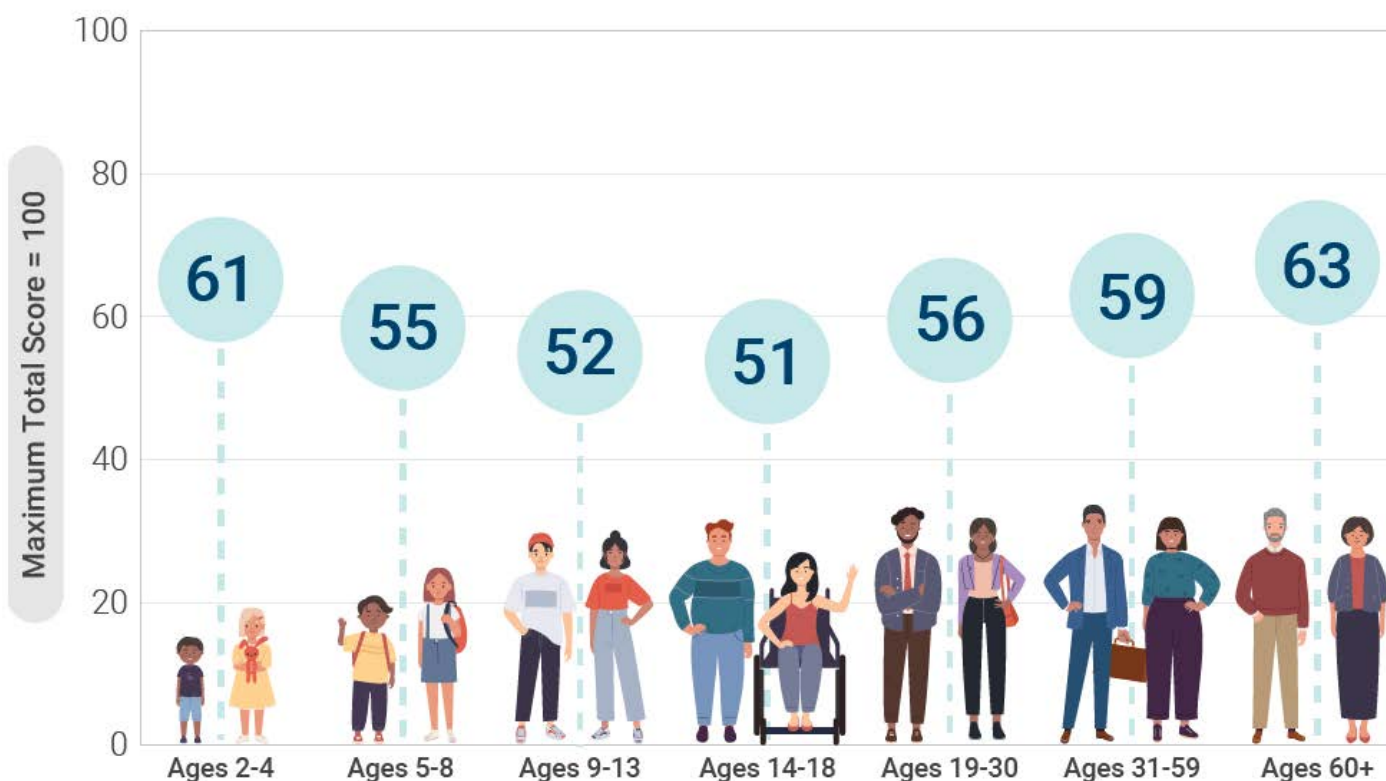
Bone Health
(Some) Cancers

Core Components to Limit:

- Saturated Fats
- Added Sugars (Beverages)
- Sodium
- Alcohol

How Healthy is the American Diet?

Healthy Eating Index (HEI)



The Healthy Eating Index Score

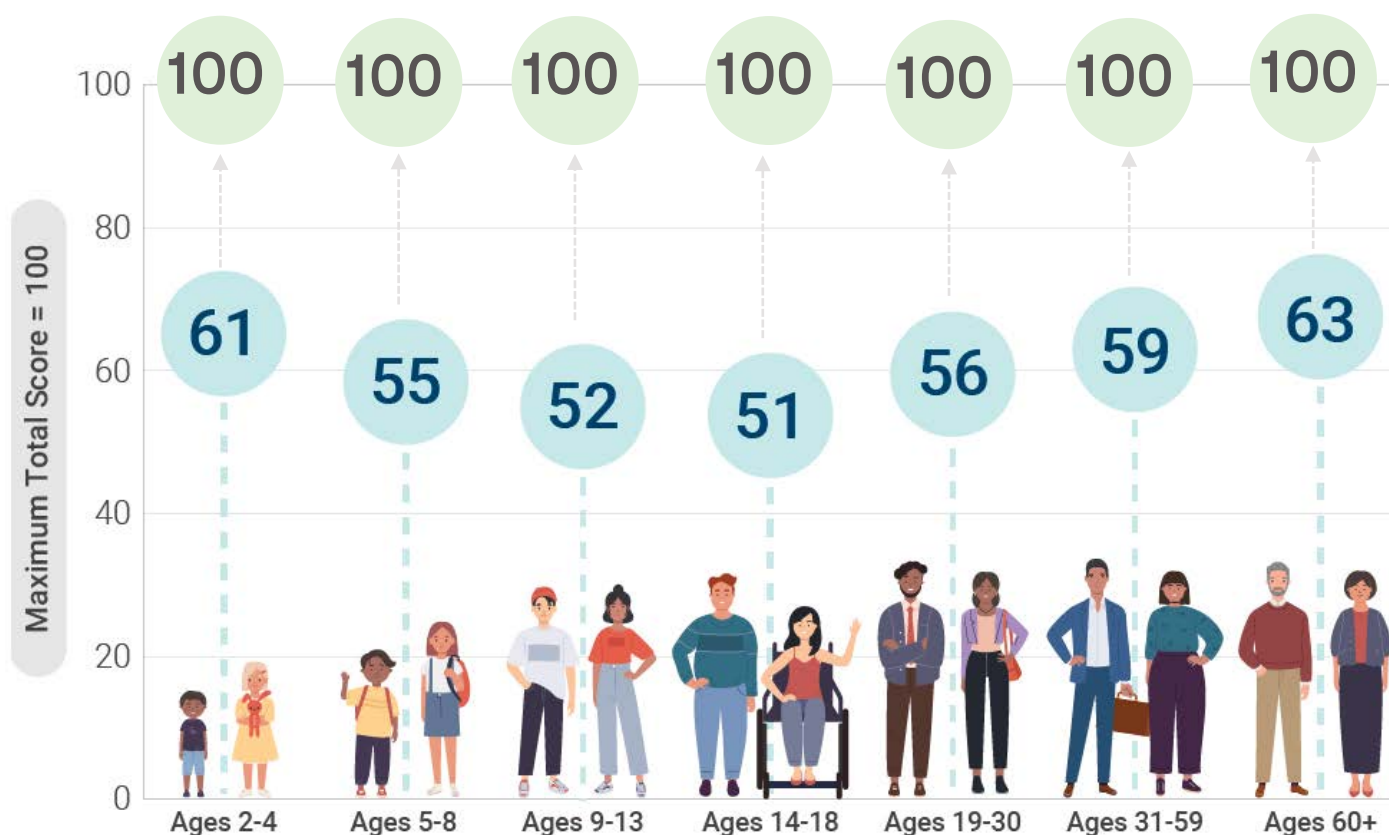
A measure of *Diet Quality* used to assess how well Americans follow the current DG recommendations (on a scale from 0-100)

59

Average Score

How Healthy is the American Diet?

Healthy Eating Index (HEI)



Overconsumption:

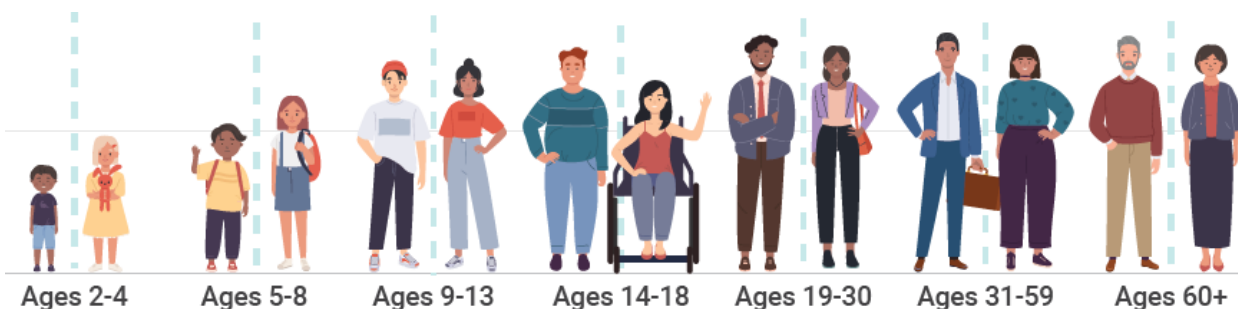
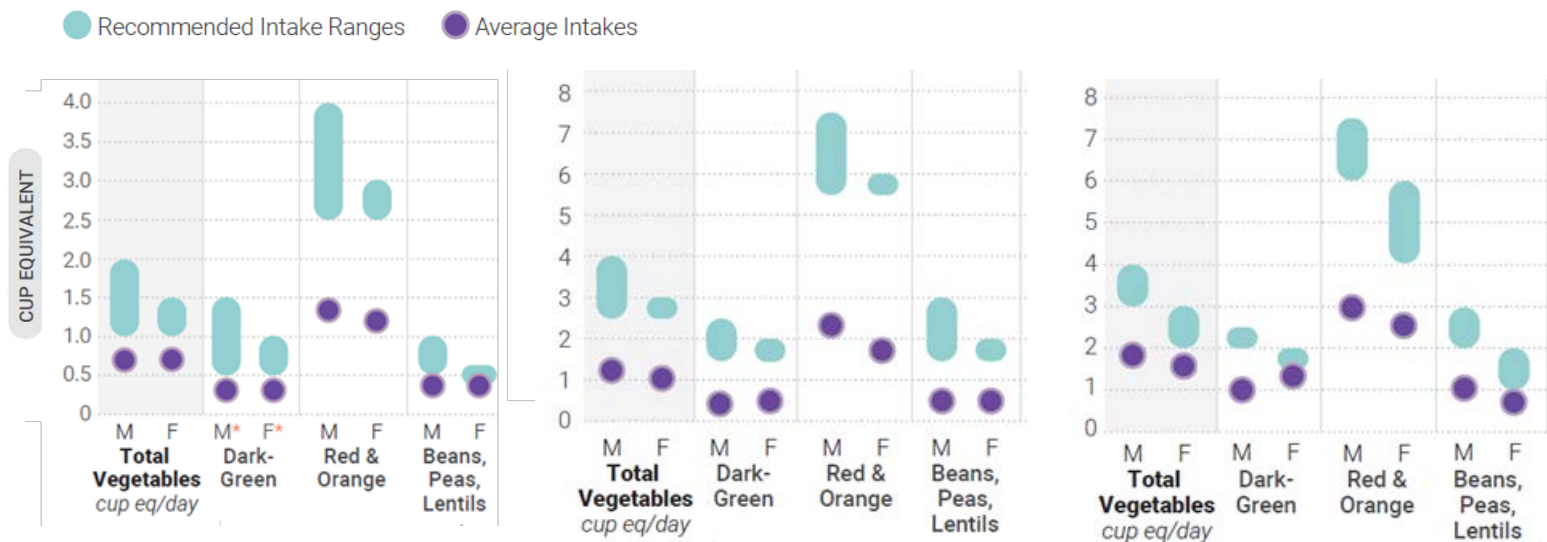
- Total Energy
- Saturated Fats
- Sodium
- Added Sugars

Underconsumption:

- Fruits
- Vegetables
- Whole Grains
- Protein (adolescent girls)

How Healthy is the American Diet?

Vegetable Consumption



Overconsumption:

- Total Energy
- Saturated Fats
- Sodium
- Added Sugars

Underconsumption:

- Fruits
- **Vegetables**
- Whole Grains
- Protein (adolescent girls)

Snacking in the US

- 93% of the US population snacks each day
- Snacks comprise 23% of daily intake (~500 kcals/d)
- Americans average ~2-3 snacking occasions/day
- Afternoon snacking is the most common occasion



Snacks Defined

- No standardized definition of a ‘snack’
- What it’s not:
 - ✓ NOT dependent on energy amount



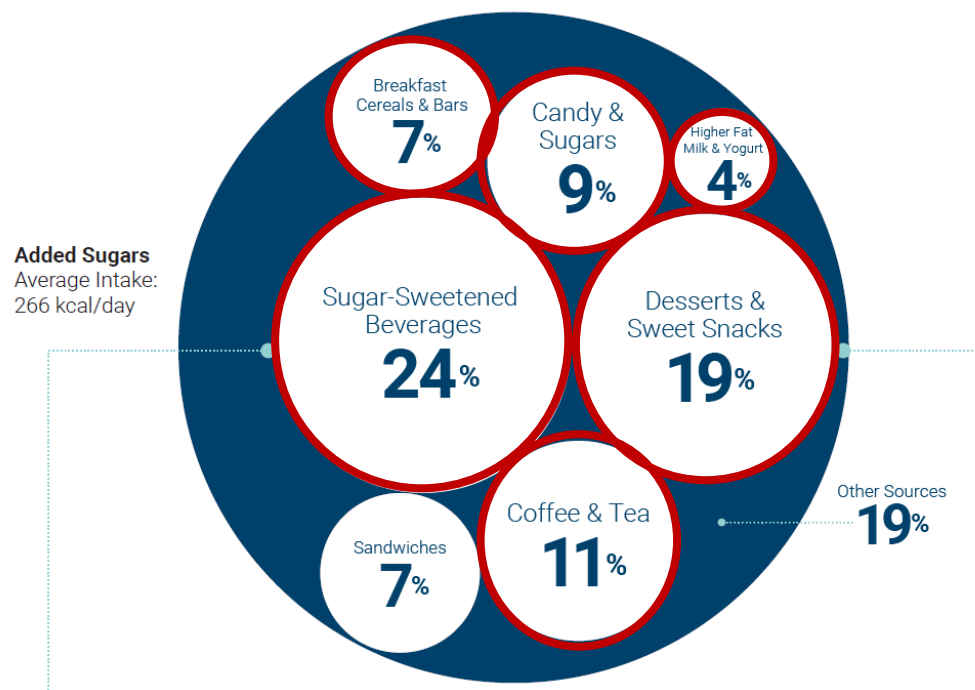
- ✓ NOT dependent on how or where it is consumed



- Any “eating or drinking” occasion occurring between regular meals

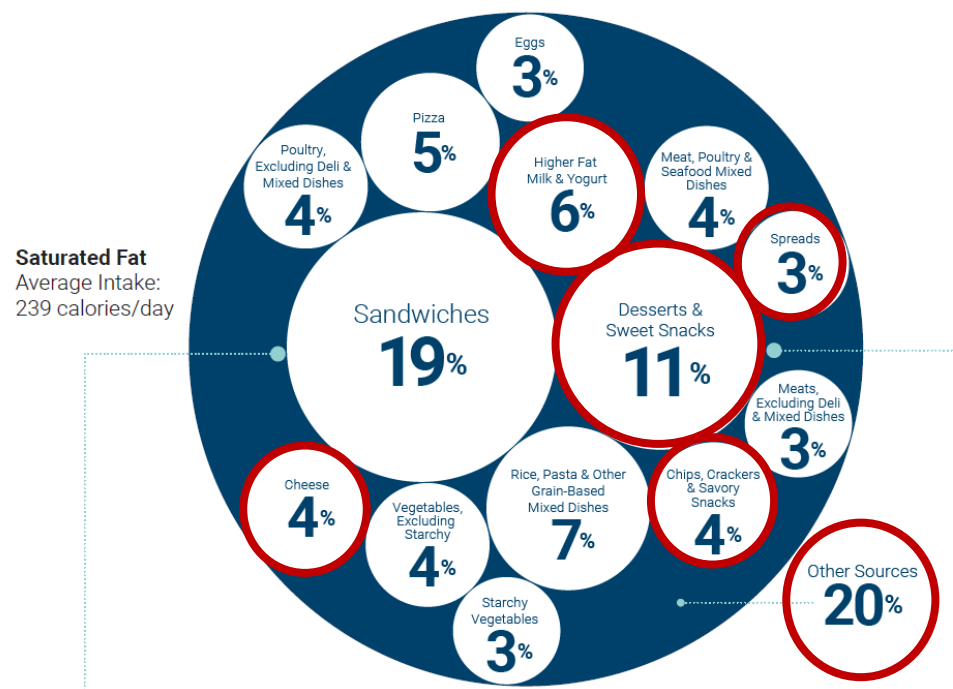
Current Dietary Patterns & Snack Foods

Top Sources & Avg. Intakes of Added Sugars



~75% are from Snack Foods & Beverages

Top Sources & Avg. Intakes of Saturated Fats



~50% are from Snack Foods & Beverages

Snacking-Weight Paradox

Increased Snacking:

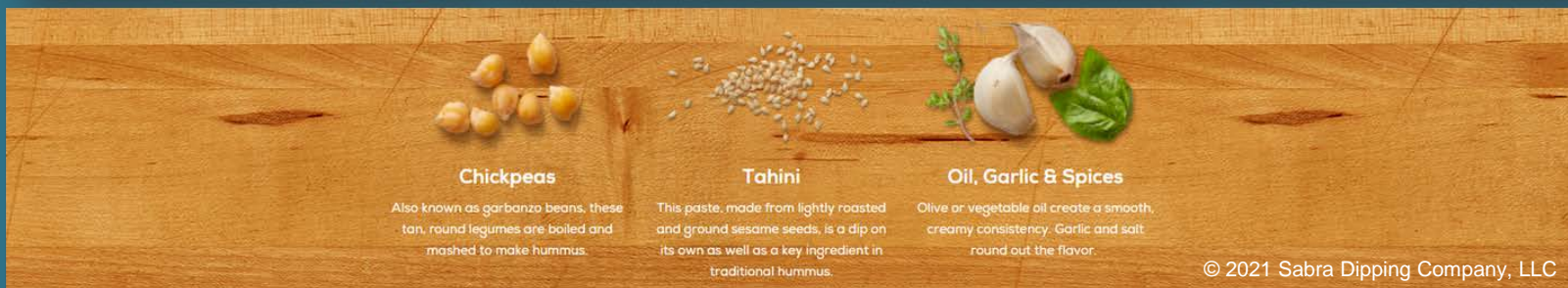
- Increased Energy Intake
- Greater % of Childhood Obesity
- Decreased Diet Quality



- No Associations with Weight
- Healthy Adults
- Increase in Key Nutrients

Hummus as part of a nutrient-dense snack

- Plant-based food
- Part of protein foods & vegetable categories
- Nutrients: unsaturated fat, protein, fiber, iron, B vitamins, & minerals
- Fits into All 3 DGA Healthy Eating Patterns
- Delicious & Versatile



Benefits of hummus as part of a nutrient-dense snack

Acute snack study in healthy adults providing 240 kcals afternoon snacks as Hummus & Pretzels (HUMMUS) or Granola Bars (BARS) vs. No Snack

Hummus Snack

- 2 servings (4 TBSP) Hummus
- 1 serving Pretzels



Granola Bar Snack

- 2 servings (2 Granola Bars)



Snack Characteristics

	NO SNACK	BARS	HUMMUS
Snack mass, g	0	54	83
Energy content, kcal	0	240	240
Energy density, kcal/g	0	4.44	2.89
Protein, g	0	4	6
Carbohydrate, g	0	38	31
Sugar, g	0	16	2
Fiber, g	0	2	4
Fat, g	0	9	11
Palatability, ² mm	N/A	76 ± 3	85 ± 1*
Added Sugar, g		14	2
Saturated Fat, g		5	2
Legumes (% weekly recommendations)		0	16%

Hummus & Daily Intake

Food Intake Across the Day

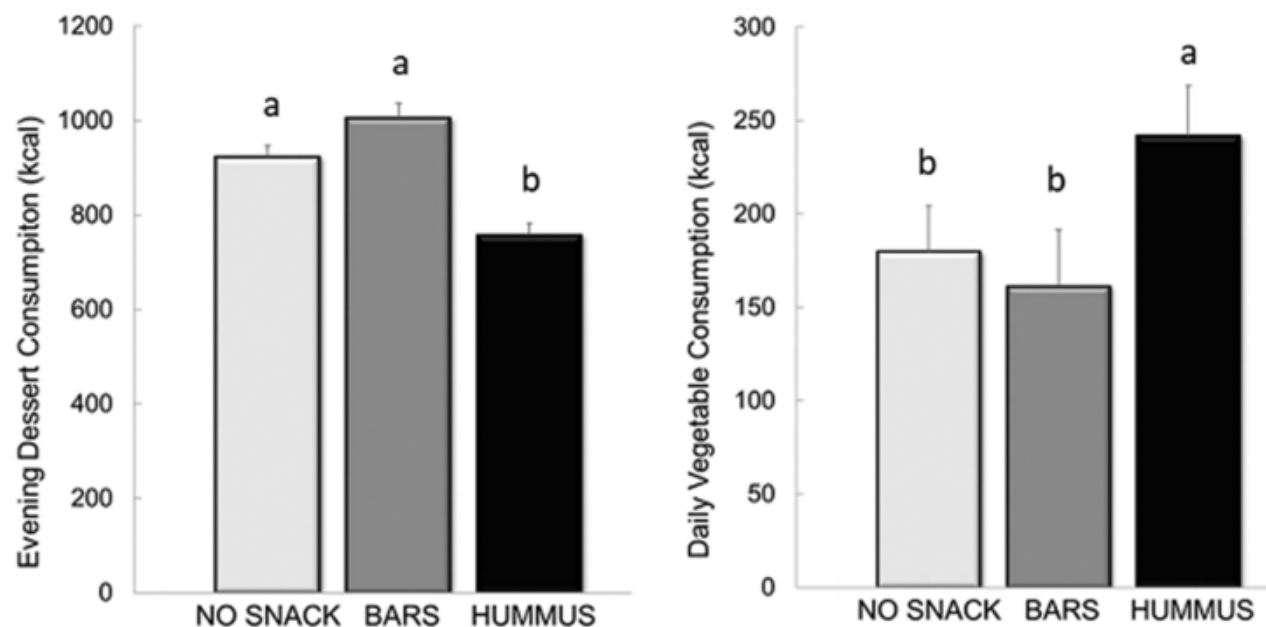


	NO SNACK	BARS	HUMMUS
Standardized meal energy intakes, kcal			
Breakfast	405 ± 25	410 ± 25	415 ± 25
Lunch	440 ± 0	440 ± 0	440 ± 0
Afternoon snack	0 ± 0	240 ± 0	240 ± 0
Dinner	270 ± 0	270 ± 0	270 ± 0
Ad libitum evening snack energy intake, kcal	1400 ± 120 ^a	1220 ± 125 ^b	1110 ± 120 ^b
Total daily energy intake, kcal	2540 ± 135	2610 ± 140	2490 ± 130
Dietary compensation, %	N/A	71.7 ± 32.0 ^a	122.4 ± 31.1 ^b

Consuming hummus, as part of an afternoon snack, led to greater dietary compensation & reductions in subsequent evening snacking

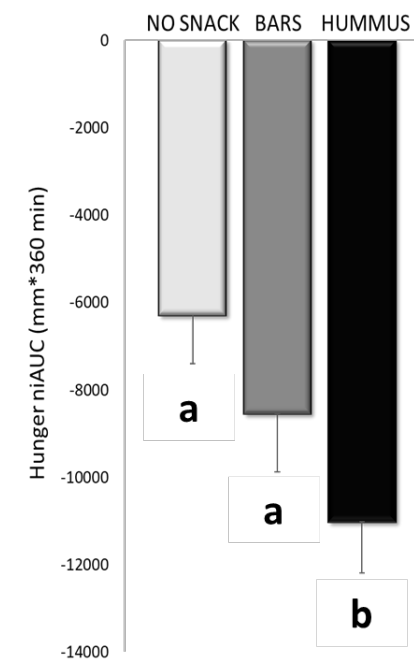
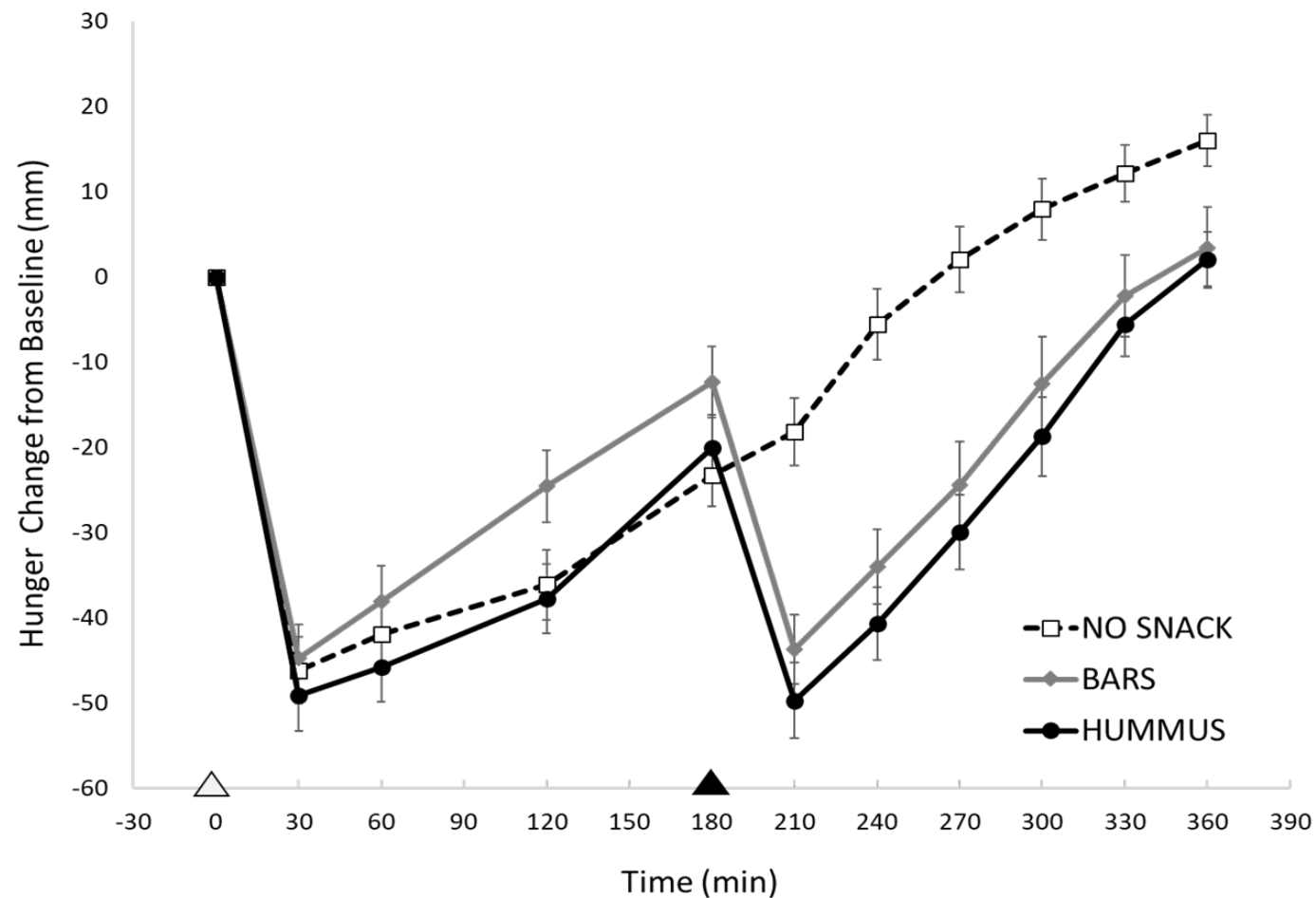
Hummus & Diet Quality

Subsequent Evening Snacking



Consuming hummus, as part of an afternoon snack, led to improvements in diet quality by reducing added sugar consumption while increasing vegetables

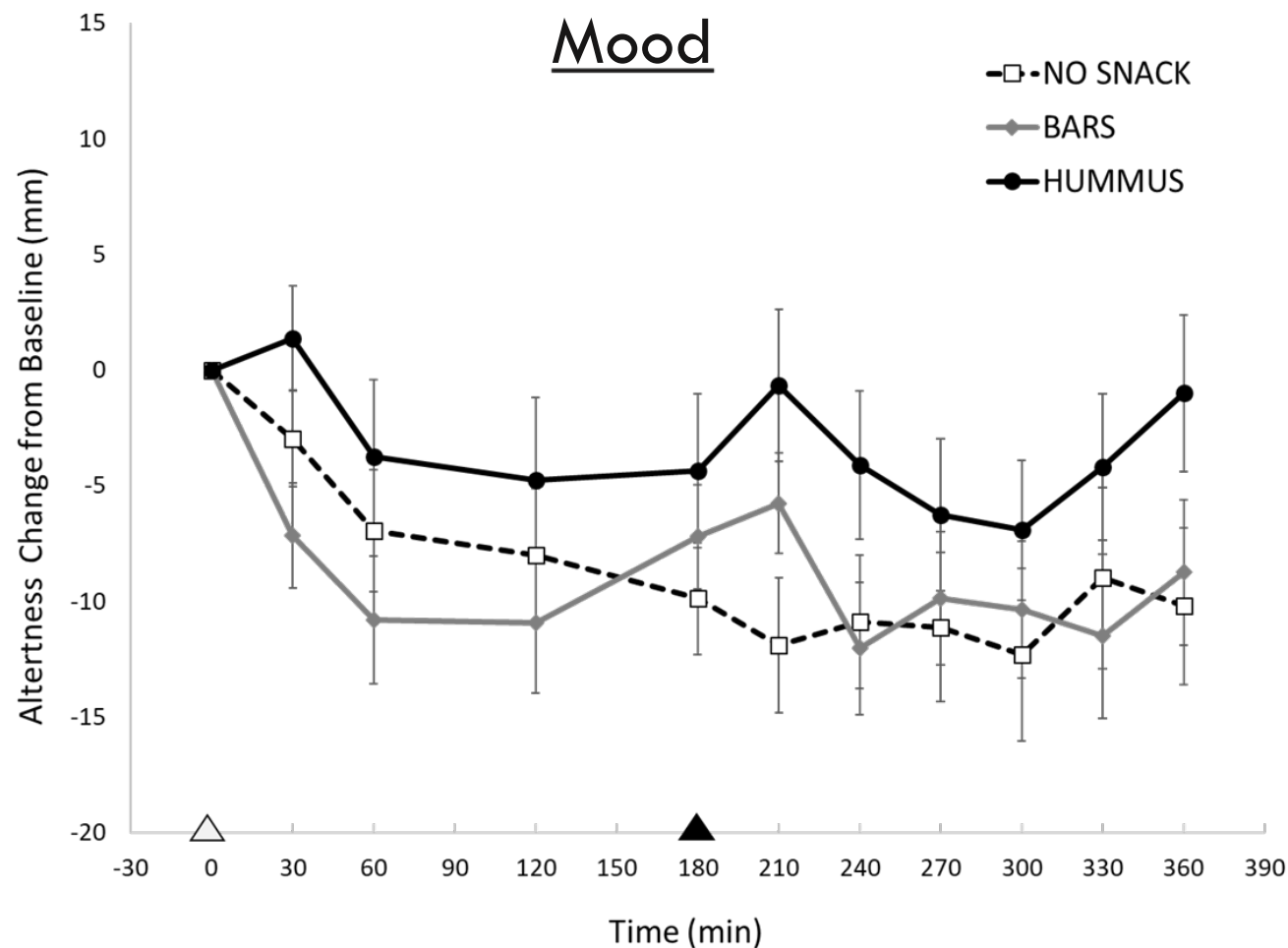
Hummus & Appetite



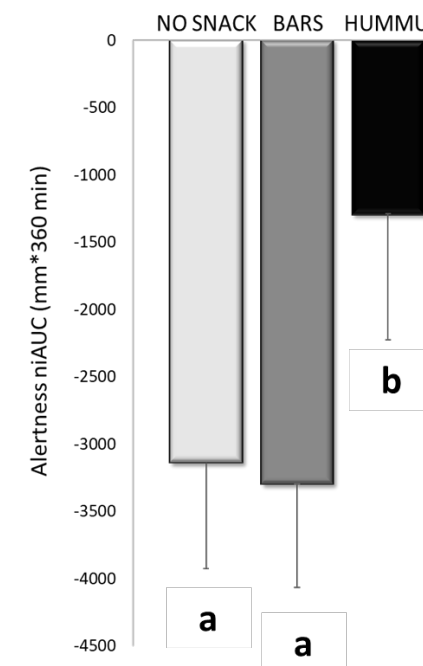
Different letters denote significance, post-hoc pairwise comparisons, $P < 0.05$

Consuming hummus, as part of an afternoon snack, led to reductions in afternoon hunger.

Hummus & Mood

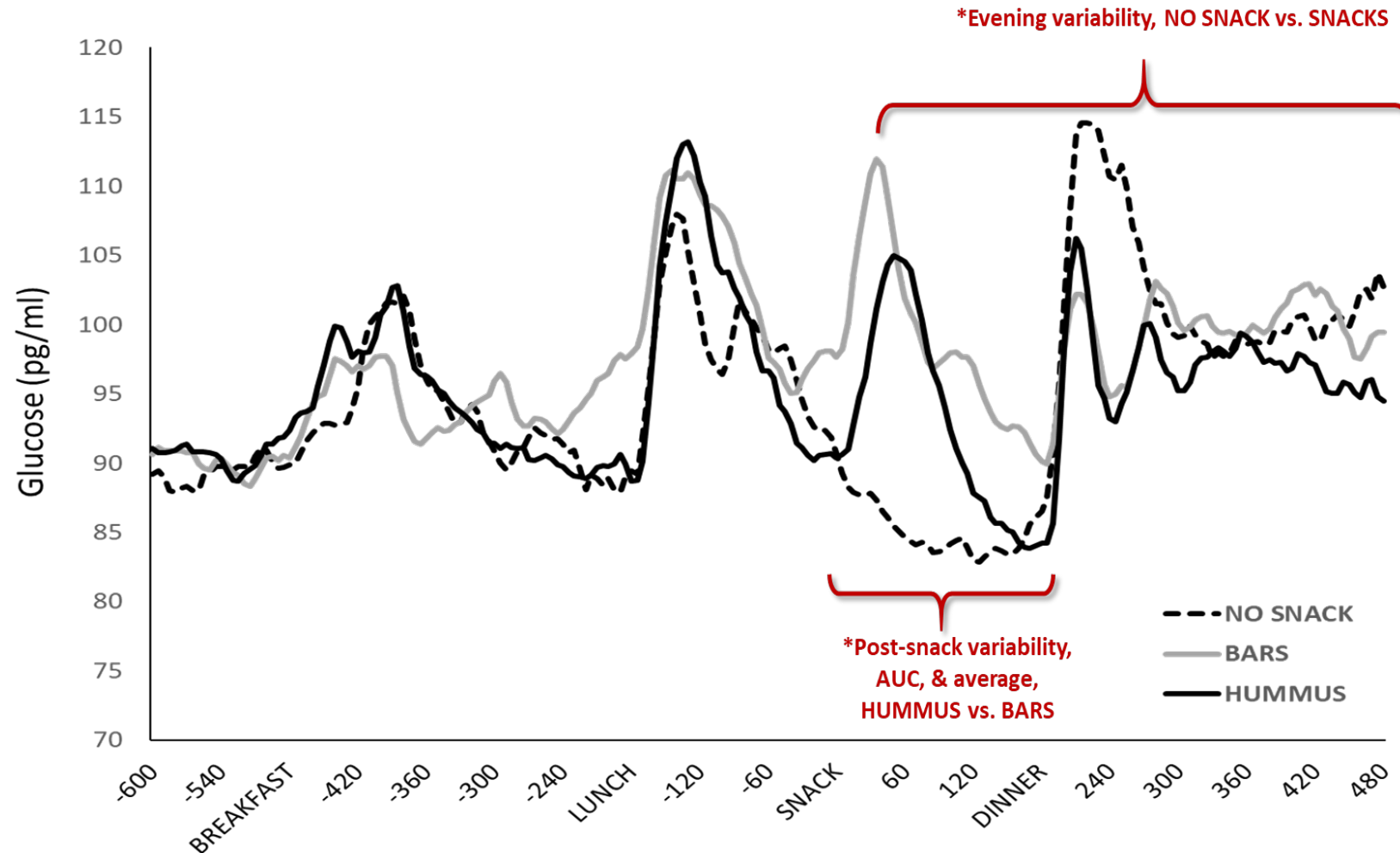


Different letters denote significance, post-hoc pairwise comparisons, $P < 0.05$



Consuming hummus, as part of an afternoon snack, led to smaller reductions in afternoon alertness.

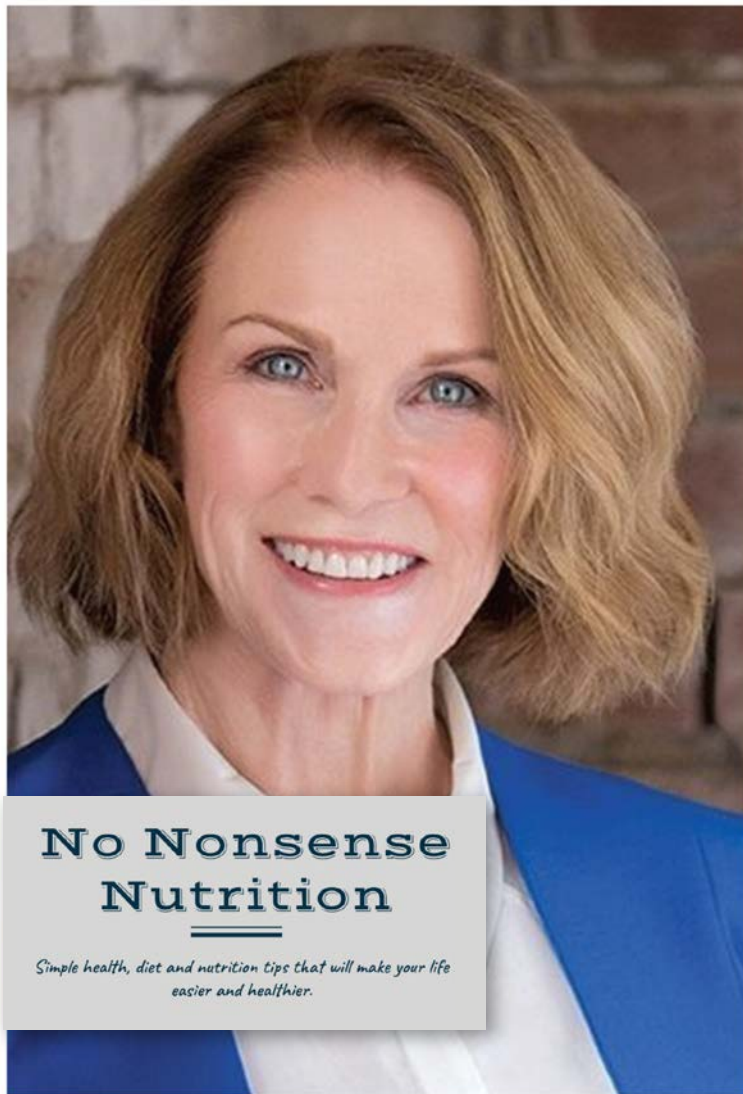
Hummus & Glucose Control



Consuming hummus, as part of an afternoon snack, improves glycemic control later in the day.

Summary

- Current American diet remains low in diet quality as a result of consuming too few nutrient-dense foods and too many nutrient-poor, energy-dense foods.
- Given that snacking continues to be a staple in the American diet, targeting nutrient-dense foods to consume within those eating occasions is critical.
- Afternoon snacking containing hummus has shown benefits related to satiety, diet quality, and glucose control but more research is needed for long-term health.



Kathleen
ZELMAN
MPH, RDN, LD

Translating the Evidence into Practice: Simple Snacking Swaps to Boost Diet Quality

May 25, 2021

Back to Basics: What is a Snack?

No formal definition, but recent research notes that a snack refers to:

Snack [snak]:

Eating foods or consuming caloric beverages between regular meals.

Source: *Advances in Nutrition*, Volume 8, Issue 2, March 2017, Page 398, <https://doi.org/10.3945/an.117.015198>



Back to Basics: Nutrient-Density

The nutrient density standard, as defined by the FDA, is the ratio of the amount of beneficial nutrients relative to the food's energy content per reference amount customarily consumed.

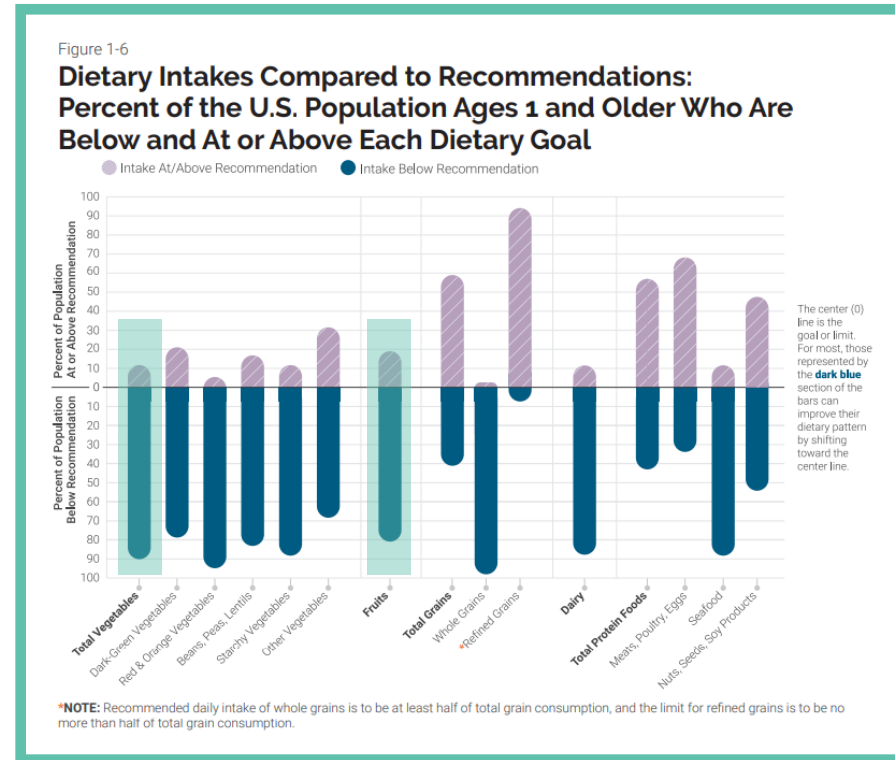
Source: *The American Journal of Clinical Nutrition*,
Volume 82, Issue 4, October 2005, Pages 721–732.



2020-2025 DGA's Emphasize Nutrient-Dense Snacking

Snacks can help to promote intake of nutrient-dense fruits and vegetables.

Source: U.S. Department of Health and Human Services and U.S. Department of Agriculture. *2020 – 2025 Dietary Guidelines for Americans*. 9th Edition. December 2020.



Snacking at Home is Booming

- **93%** of the U.S. population snacks
- **More than one-third** of US adults are reaching for snacks **more often during the pandemic**
- Frozen snacks are soaring
- SNAP households are snacking more than ever

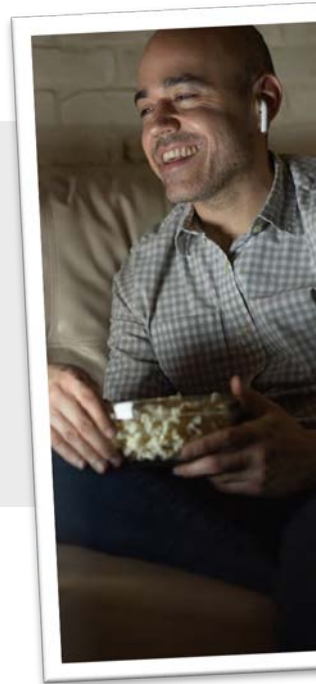


Sources: YouGov (2020), IRI 2021 Snacking Survey % of Consumers, IRI Snap Shoppers

People Want to Enjoy Their Snacks

- **Just over half** of consumers want snacks that are **authentic, enjoyable and unique**
- **Gen Z and millennials** are particularly fanatical for snacks eating **5+ snacks per day**

Source: IRI Snacking Survey 2021



COVID Pandemic has Changed Eating Behavior and Accelerated Weight Gain

- **30% of adults reported eating more unhealthy foods** than usual during the pandemic and worsening eating habits
- **People are craving comfort food** more than ever
- **1/3 of U.S. adults reported unwanted weight gain**
 - +1.5 pounds per month during lockdown



SOURCES:

Ferrante G, et al. Did social isolation during the SARS-CoV-2 epidemic have an impact on the lifestyles of citizens? Epidemiol Prev. 2020 Sep- Dec;44(5-6 Suppl 2):353-362.

www.apa.org/news/press/releases/stress/2021/one-year-pandemic-stress

Lin AL, et al. Body Weight Changes During Pandemic-Related Shelter-in-Place in a Longitudinal Cohort Study. JAMA Netw Open. 2021;4(3):e212536.

Snacking Can Help Address COVID Trends

Immune Boosting Foods

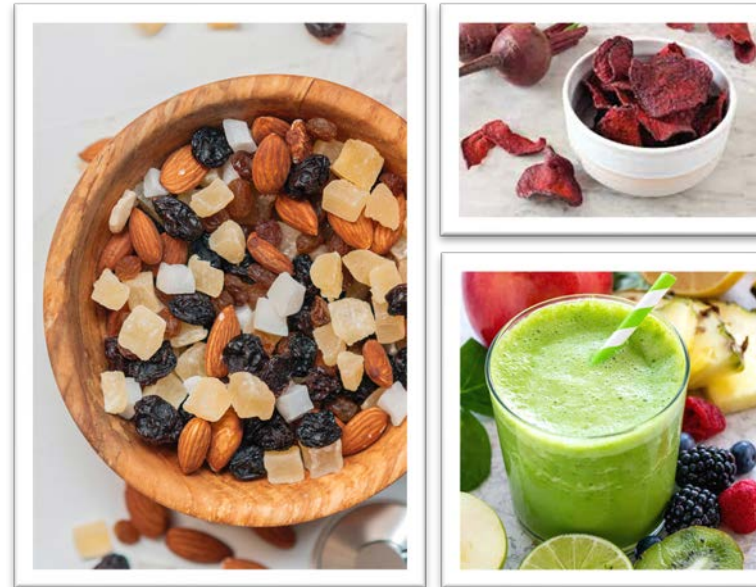
Snacking solution: packaged foods with fruit, nuts and healthy ingredients

Plant-based Foods

Snacking solution: fruit or veggie smoothie, veggie chips

Food as Medicine

Snacking solution: fermented foods (e.g., kimchi), oatmeal topped with flax seeds



Source: IRI COVID Trends

People Want Snacks that Deliver Nutrition and Taste

- **Nearly half** of consumers want snacks **low in sugar**
- Just **over half** of consumers want snacks that contain **vitamin and minerals** and provide an **energy boost**
- **93%** of consumers choose snacks **based on taste**

Sources: IFIC Foundation 2019 Food and Health Report, IRI Snacking Survey 2020



It's Not Just Adults Who are Snacking

About **25% of a little one's daily calories** come from snacking occasions but there is room for improvement:

- Shortfalls in important nutrients (e.g., iron)
 - Excessive sodium intake
- Nutrient-dense snacks can help.



Source: Food Consumption Patterns of Infants and Toddlers:
Findings from the Feeding Infants and Toddlers Study (FITS) 2016

Snacking is in Style

People are loving snacking and want to get more from their snacks. Here are some factors to consider when selecting a snack:

- **Convenience**
- **Affordability**
- **Nutrient density**
(e.g., beans, legumes, nut butters)



Simple Swaps: French Onion Dip & Carrots → Hummus & Carrots



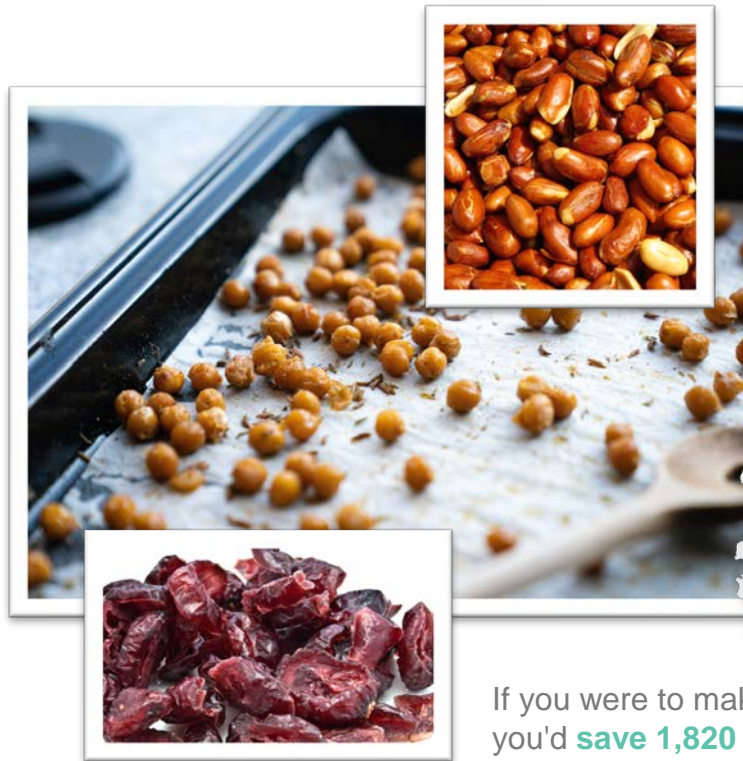
Swap: 2 tbsp French onion dip with 5 large baby carrots

For: 2 tbsp hummus with 5 large baby carrots

Added Benefits:

- + Increases fiber by **2 g**
- Decreases sodium by **50 mg**
- Decreases saturated fat by **1.5 g**

Simple Swaps: Candy Trail Mix → Chickpea Trail Mix



Swap: 1 oz. candy trail mix

For: 1 oz. homemade chickpea trail mix with an even mix of peanuts, dried cranberries, sunflower seeds and roasted chickpeas

Calories Saved: 35

Added Benefits:

- + Increases fiber by 1.2 g
- Decreases sugar by 3.4 mg

If you were to make this swap once a week for an entire year, you'd **save 1,820 calories**. A small 1 oz swap makes a HUGE impact.

Simple Swaps: M&M's → Dark Chocolate Dessert Dip & Spread with Strawberries



Swap: 1 package M&M milk chocolate candies

For: 2 tbsp dark chocolate dessert dip and spread with 4 large strawberries

Calories Saved: 130

Added Benefits:

- Decreases saturated fat by 5 g
- + Increases fiber by 2 g
- Decreases added sugar by 23 g

Communicating Smart Snacking



Pair Up

Create a dynamic duo and pair your favorite fruit or vegetable with a nutrient-dense spread like hummus or almond butter



Make the Doing Easy

Frozen and canned produce can help you to whip up a nutritious and delicious snack in a pinch



Season to Taste

Experiment with a variety of fun spices and seasonings to make a simple snack a gourmet experience



Repeat, Repeat, Repeat

Create habits that can easily be repeated like adding dried fruit to a trail mix snack





Q&A

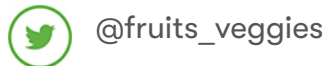
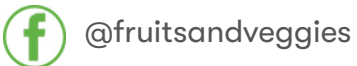
Join The Movement



have a
plant
fruitsandveggies.org

Show your support by taking and sharing the Have A Plant® pledge at fruitsandveggies.org. While you're there, check out the useful resources to equip you with the tools you need to enhance your nutrition knowledge and empower consumers to enjoy more fruits and vegetables every day.

Follow PBH's social channels to keep up to date on all the insights and inspiration. #haveaplant



**SEPTEMBER IS NATIONAL
FRUITS & VEGGIES
MONTH**
#HAVEAPLANTPLEDGE
#HAVEAPLANT #NFVM2021

September is National Fruits & Veggies Month and each year we celebrate Have A Plant® during this monumental moment. This year's theme:

PBH celebrates the International Year of Fruits and Vegetables in the U.S. during National Fruits and Veggies Month 2021!
Have A Plant® Nation Goes Global!

Start planning today for this year's celebration with our National Fruits & Veggies Month Toolkit!

<https://fruitsandveggies.org/nfvm-toolkit/>



A catalog of PBH's past webinars is available at fruitsandveggies.org/expert-professionals/webinars.

Continuing professional education units (CPEU) are available for live and pre-recorded webinars.



THANK YOU

We live at the center of produce,
partnership and passion.

**WE ARE SO HAPPY
YOU'RE WITH US!**

