



The Science Behind Breakfast: An Up-to-Date Review




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Complimentary 1-Credit Continuing Education Webinar

Disclosures



Holley Grainger, MS, RD
Holley serves as a member of Kellogg's Breakfast Council.



Carol Byrd-Bredbenner, PhD, RD, FAND
Carol serves as a member of Kellogg's Breakfast Council.

Learning Objectives

Suggested CDR Learning Codes: 9020, 9050, 4020, 4030; Level 2

At the conclusion of this CE webinar, nutrition professionals should be able to:

- Describe the health and cognitive benefits of eating breakfast.
- Summarize breakfast eating trends.
- Discuss strategies for improving breakfast research and consumer communications.

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Breakfast Benefits

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Breakfast Benefits

- Diet quality
- Energy balance
- Children's performance in school



Sources: 23, 34, 36, 38, 42, 51, 68, 82

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Breakfast Eaters Get More

- Dietary fiber
- Minerals: calcium, potassium, iron, magnesium, phosphorus, and zinc
- Vitamins: thiamin, riboflavin, niacin, folate, and vitamins A, B6, C, and B12

Sources: 2, 7, 8, 12, 13, 26, 45, 53, 79, 81, 94, 95

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Breakfast Cereal Eaters

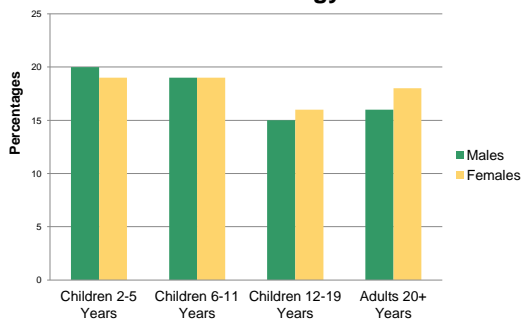
- More whole fruits
- More whole grains
- More dairy
- Less fat
- Less cholesterol



Sources: 2, 5, 6, 7, 8, 26, 61, 73

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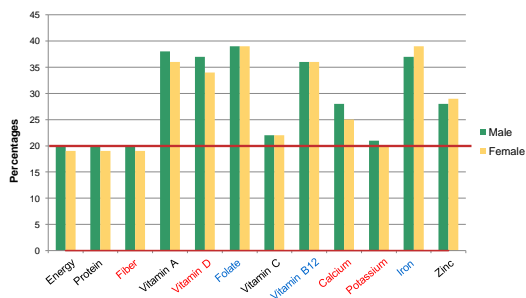
Food Energy



Source: NHANES 2009-2010, USDA 2012

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Children 2-5 Years



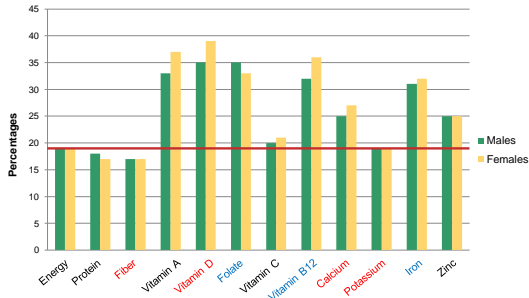
*Nutrients of concern

**Nutrients of concern for special populations

Source: NHANES 2009-2010, USDA 2012

Children 6-11 Years

10



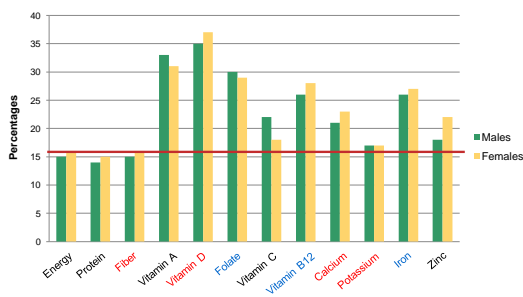
*Nutrients of concern

**Nutrients of concern for special populations

Source: NHANES 2009-2010, USDA 2012

Children 12-19 Years

11



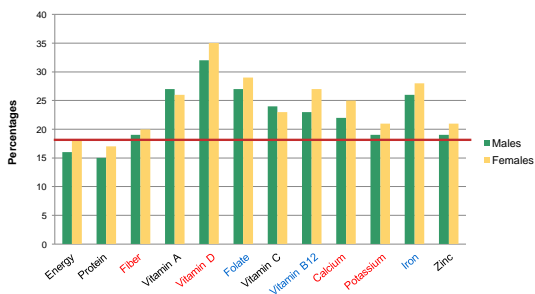
*Nutrients of concern

**Nutrients of concern for special populations

Source: NHANES 2009-2010, USDA 2012

Adults 20+ Years

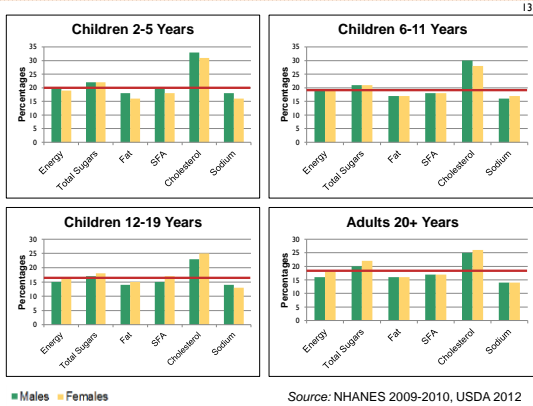
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Source: NHANES 2009-2010, USDA 2012



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Breakfast Benefits

- Diet quality
- Energy balance

Sources: 12, 26, 30, 44, 53

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Breakfast contributes to healthy weight.

Sources: 57, 63, 72, 73, 78, 84

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**Breakfast
contributes
to healthy
weight...now
and in the
future.**

Source: Niemeier, *J Adolesc Health*, 2006

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**Breakfast
contributes to
maintenance of
weight loss.**

Source: Wyatt et al., *Obes Res.*, 2002

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Cereal for Breakfast

Lower Prevalence of Overweight Among Cereal Breakfast Eaters



Young Adults



Women



Children

Sources: 25, 35, 65, 80

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Breakfast and Weight Status

Cross-Sectional Studies

- Consistent results

Prospective & Randomized Studies

- Inconsistent results

Sources: 17, 28, 49, 55, 84

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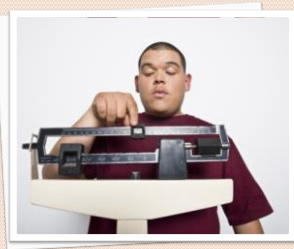
2010 Dietary Guidelines Advisory Committee Needs for Future Research

Define Breakfast: a common definition is vital to understanding the role of breakfast in health and wellness



Source: USDA, CNPP 2010

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Kids and teens that skip breakfast have greater risk of being overweight and obese.

Sources: 6, 10, 13, 21, 33, 37, 57, 63, 73, 83, 85

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Breakfast Benefits

- Healthier lifestyle habits
- Appetite control
- Satiety



Sources: 11, 20, 22, 31, 66, 68, 76, 77

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Breakfast Benefits

- Diet quality
- Energy balance
- Cognitive function

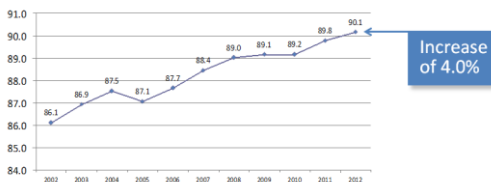


Sources: 1, 14, 16, 31, 39, 47, 60, 70, 93

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Breakfast Consumption is on the Rise

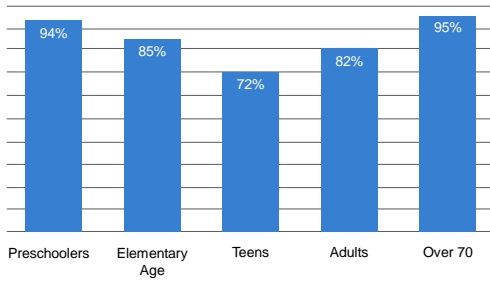
% of Breakfasts Eaten



Source: NPD Group, 2012

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Breakfast Eaters



Sources: 50, 88

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Breakfast Boosters vs. Blockers

Breakfast Boosters

- Parent role models
- Palatable, pleasant foods
- Know the benefits

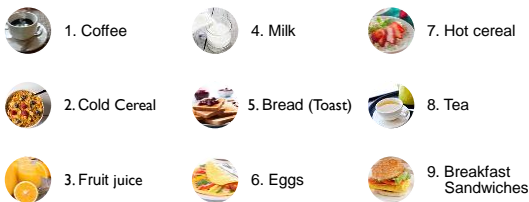
Breakfast Blockers

- Not feeling hungry
- Lack of easy options
- Busy mornings
- Lack of planning
- Misconceptions

Sources: 3, 14, 24, 38, 46, 52, 67, 75, 76

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Top Items Consumed at Breakfast



Source: NPD Group, 2012

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Breakfast Defined



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Breakfast is the first meal of the day that breaks the fast after the longest period of sleep and is consumed within 2-3 hours of waking; it is comprised of food or beverage from at least 1 food group, and may be consumed at any location.



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Quality Breakfast



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Quality Breakfast



- Key food groups
- Energy
- Nutrients
- Role models
- Appealing foods

Sources: 34, 59

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Quality Breakfast

- Energy: 15 to 25% total daily energy



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Quality Breakfast

- Energy: 15 to 25% total daily energy
- Proposed energy to be provided by the breakfast meal:

Daily Energy Requirement	Energy Range for Breakfast Meal (15-25% of total daily energy)
1600	240-400
2000	300-500
2400	360-600

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Quality Breakfast

- Energy: 15 to 25% total daily energy
- Food Groups: at least 1



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Quality Breakfast

- Energy: 15 to 25% total daily energy
- Food Groups: at least 1



Lowfat dairy



Whole and enriched grains and cereals



Lean protein foods



Fruits and vegetables

Sources: 15, 18, 48, 56, 58, 62, 74, 82, 88, 90

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Quality Breakfast

- Dietary Guidelines for Americans
- MyPlate
- School Breakfast Program
- Healthy, Hunger-Free Kids Act
- Nutrients of Concern
- Consumer Lifestyles, Preferences, Goals, and Resources

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Translating the Breakfast Definition

Insight from health behavior change research and theory

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Top Tips for Nutrition Communication

1. Be Clear and Concise
2. Make it Memorable & Matter
3. Include Visuals
4. Be Action-Oriented



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Power of Visual Communication

- Makes the message **memorable**
- **Appeals** to a broad audience
- Gets people's **attention** quickly
- Helps us **learn** faster and more effectively
- Lets people do their own **thinking**
- Helps us tell **stories**

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What Consumers Want

- Science broken down for them
- Simple advice
- Small doable steps
- To be talked to (not at)
- Reasons to believe in you
- Engaged
- Entertained
- Empowered

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To Optimally Effect Behavior Change:

Communication & Intervention Should Consider:

1. Consumers' Internal Resources

Knowledge, Motivation, Self-efficacy for the particular behavior, and Skills.



2. Consumers' Environment

Resources and setting for individuals to apply their internal resources to perform behaviors

Sources: 19, 54

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How to Build Internal Resources

- Translate proposed breakfast definition and criteria into practical, personalized advice
- Build knowledge about the value of eating a healthful breakfast regularly (i.e. support health, cognitive and performance goals)



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Resources to Build Knowledge

- Soundbites
- Visuals
- Demos
- Personalized messages



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Principles for Breakfast Communication

1. PERSONALIZE based on consumer needs
 - Many consumers understand the importance and value of a quality breakfast but still skip due to various barriers.
 - Our role as translators: enhance the attractiveness of breakfast messages to make them personal, relevant and meaningful

Sources: 40, 52, 69, 75

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Principles for Breakfast Communication

2. Respect individual preferences and schedules.



Source: Petty and Cacioppo, 1986

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Principles for Breakfast Communication

3. Make messages match interest, lifestyle

Weight loss

- appetite control
- weight management

Busy Family

- children's cognitive gains and accomplishments
- improved concentration and academic performance
- family time for psychological and health benefits

Limited Budget

- government assistance programs to support a quality breakfast

Sources: 9, 29, 32, 47, 60, 69, 71

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Audience-Specific Breakfast Messages



Children



Teens



Moms



Busy Families



Young Adults



Older Adults

Children

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- Power up with breakfast: breakfast gives you superhero powers.
- Get an A on breakfast.



Fuel up with a superhero sandwich using scrambled eggs, turkey bacon and cheese.

Teens

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- Breakfast is the "weigh" to go.
- Energize your day with breakfast.

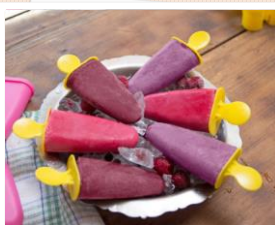


If time is short, slurp down a breakfast smoothie blended with your favorite yogurt, milk or juice, some fruit pieces, and ice.

Moms of School-Age Children

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- Breakfast boosts brainpower.
- Balanced breakfasts are best.
- Beat the bore. Have fun with breakfast!



If your children are tired eating the same thing each morning, change up their routine to keep them interested.

Busy Families

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- Get breakfast organized the night before.
- Make it a point to eat breakfast together whenever possible.



Batch cook and freeze breakfast options on the weekends that can quickly be defrosted on weekday mornings.

Young Adults

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- Think outside the traditional breakfast meal.
- Keep breakfast simple.



When you are short on time, there's no need to cook. Enjoy a slice of pizza with 100% orange juice.

Older Adults

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- Breakfast is just plain good for you.
- Protect your health with breakfast



Breakfast can be as simple as a cup of coffee with whole-wheat toast and fruit or a "do-over" from last night's leftovers.

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Principles for Breakfast Communication

Offer realistic solutions to eating a quality breakfast daily while keeping common barriers in mind like:

- Costs
- Time
- Lack of hunger
- Fear of weight gain



Sources: 40, 41, 43, 75

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Overcoming Breakfast Barriers

1. Offer personalized solutions to build confidence in the ability to eat a quality breakfast daily (regardless of environmental conditions)
2. Address barriers and offer “environmental restructuring tips” (aka strategies) to make breakfast part of a daily routine (ie. time management, food prep, buying in bulk)

Sources: 41, 43, 52

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Environmental Restructuring Tip Examples

1. Set out dishes, utensils, and non-perishable ready-to-serve foods, such as whole grain bread or cereal, on the counter the night before.
2. Move refrigerated items, such as low-fat milk, yogurt, fresh fruit, and 100% juice to the front of the refrigerator shelf for easy access. Wash fresh fruit and cut it for fruit cups, and if using 100% juice from concentrate, prepare the night before.
3. Blend together low-fat or fat-free yogurt, frozen fruit chunks, and 100% fruit juice for a grab-and-go smoothie.

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Environmental Restructuring Tip Examples

4. Layer fruit, cereal, and low-fat or fat-free yogurt in a to-go cup for a fruit parfait to go.
5. Prepare hard-cooked eggs the night before so they are ready for a quick to-go breakfast or to make an egg sandwich with toasted whole wheat bread or bagels.
6. For individuals who may not feel hungry early in the morning, keep easily accessible nutrient-dense foods, such as trail mix, dried fruit, and fiber-rich cereal bars in the car, or in backpacks, purses, or briefcases to eat on the way to school or work.

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Questions?



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Credit Claiming

You must complete a brief evaluation of the program in order to obtain your certificate. The evaluation will be available for 3 months; you do not have to complete it today.

Credit Claiming Instructions:

1. Go to www.CE.TodaysDietitian.com/Breakfast OR Log in to www.CE.TodaysDietitian.com and go to My Account→ My Activities→ Courses (in Progress) and click on the webinar title.
2. Click "Continue" on the webinar description page. Note: You must be logged-in to see the "Continue" button.
3. Select the Evaluation icon to complete and submit the evaluation.
4. Download and print your certificate.

Please Note: If you access the Evaluation between 3-4 pm ET on 10-30 you may experience a slow connection due to a high volume of users.
