



Standout Story: Whole Grains

February 18, 2020

1:30 PM – 2:00 PM

PROFESSIONAL STANDARDS LEARNING CODES: 1310



Overview

1. Whole grains vs. enriched grains
2. Recommended vs. actual whole grain intake
3. Successful strategies for serving whole grains in schools

Definitions

Whole Grain

A grain or grain product containing the original bran, germ, and endosperm

Whole Grain-Rich

A grain product containing at least 51% whole grains (*50% for School Nutrition Programs*)

Refined Grain

A grain that has been processed to remove one or more of the three key parts (bran, germ, or endosperm)

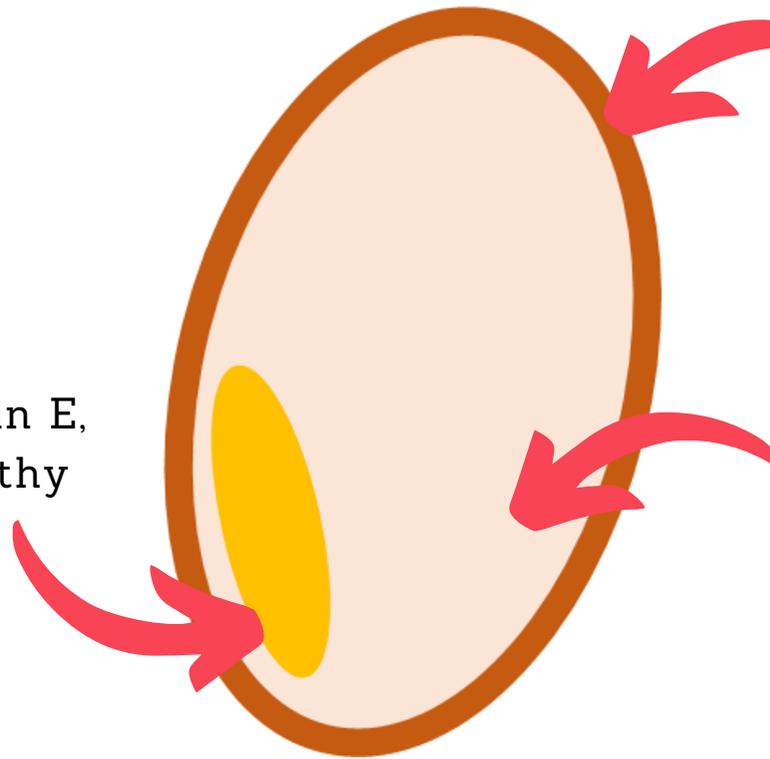
Enriched Grain

A refined grain with nutrients added back into the product through processing to compensate for those lost in removing the bran, germ, or endosperm

Whole Grain Diagram

Germ

B vitamins, vitamin E,
antioxidants, healthy
fats



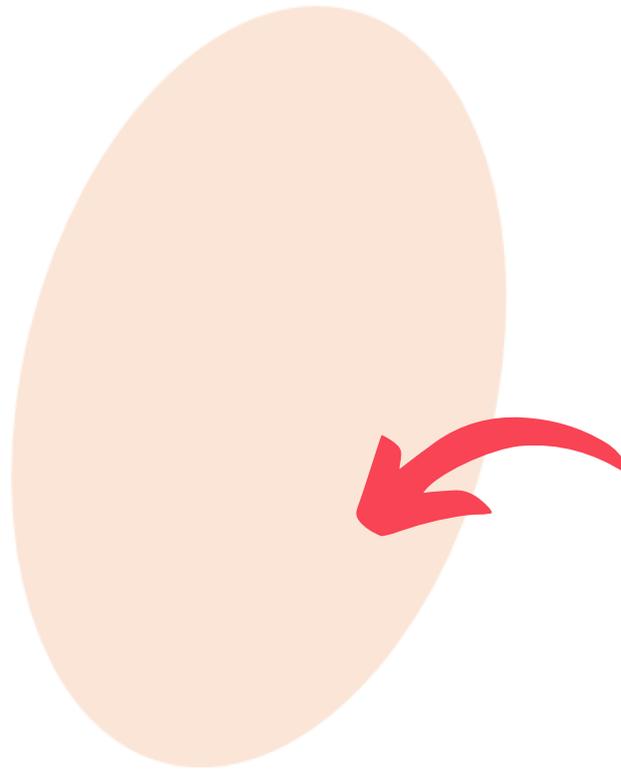
Bran

Antioxidants,
B vitamins, fiber

Endosperm

Carbohydrates, some
proteins

Refined Grain Diagram



Endosperm

Carbohydrates, some proteins

Why does this matter?

Nutrients

Fiber

- Can help lower blood sugar and cholesterol
- Promotes proper digestion
- Most Americans get less than half of the recommended daily amount of fiber

Nutrients

B Vitamins

→ Support the body's ability to produce energy

→ Fight infection and help in creation of blood cells

→ Aid in feeling energized

Nutrients

Vitamin E

- Antioxidant
- Supports a strong immune system
- Involved in formation of red blood cells

Research

What does the research say about the benefits of whole grains?

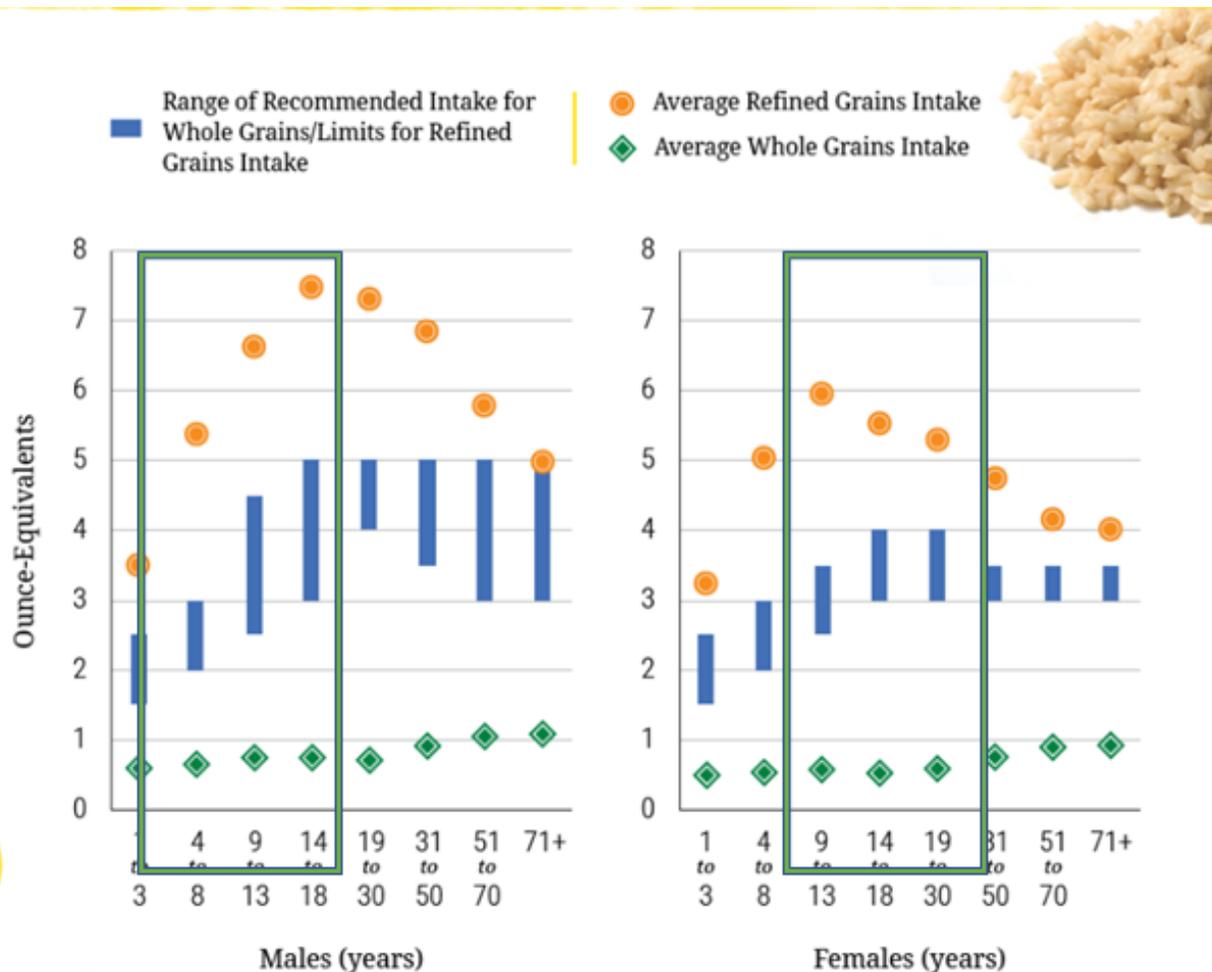
Linked to decreased risk of heart disease

Linked to decreased risk of Type 2 Diabetes

Linked to decreased risk of Crohn's disease and ulcerative colitis

Whole Grains. (2018, September 25). Retrieved April 8, 2019, from <https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/whole-grains>

Dietary Guidelines for Americans (DGAs)



Refined grain intake above the recommendation

Whole grain intake below the recommendation

Dietary Guidelines for Americans (DGAs)

Recommended Daily Whole Grain Intake
Adolescent boys: 3-4 ounce equivalents
Adolescent girls: 3 ounce equivalents

Trends in Whole Grain Consumption by Adolescents				
	2005-2006	2007-2008	2009-2010	2011-2012
Low Income	0.5 oz/day	0.5 oz/day	0.6 oz/day	0.5 oz/day
High Income	0.6 oz/day	0.6 oz/day	0.7 oz/day	1.0 oz/day

Tester JM, Keung CW, Leak TM, Laraia BA. Recent Uptrend in Whole-Grain Intake Is Absent for Low-Income Adolescents, National Health and Nutrition Examination Survey, 2005-2012. *Prev Chronic Disease* 2017; 14:160540. DOI: <https://doi.org/10.5888/pcd14.160540>

Dietary Guidelines for Americans (DGAs)

Recommend 50% of
all grains consumed
be whole grains



We don't know what individual children eat outside of school, but based on national data, it is likely most children are eating refined or enriched grains away from school.

Side-by-Side Comparison

Whole Grain Pasta 2 oz Serving

- Calories: 180
- Fat: 1.5 g
- Saturated Fat: 0 g
- Sodium: 0 g
- Potassium: 274 mg
- Total Carbs: 39 g
- Dietary Fiber: 6 g
- Sugars: 1 g
- Protein: 8 g
- Iron: 10% DV
- Riboflavin: 25% DV
- Niacin: 45% DV
- Folate: 20% DV

Ingredients: Whole grain durum wheat flour

White Pasta 2 oz Serving

- Calories: 200
- Fat: 1 g
- Saturated Fat: 0 g
- Sodium: 0 g
- Potassium: 118 mg
- Total Carbs: 42 g
- Dietary Fiber: 3 g
- Sugars: 1 g
- Protein: 7 g
- Iron: 10% DV*
- Riboflavin: 15% DV*
- Niacin: 30%* DV
- Folate: 50% DV*

Ingredients: Semolina (wheat), durum wheat flour

Vitamins/Minerals: Vitamin B3 (Niacin), Iron (Ferrous Sulfate), Vitamin B1 (Thiamine Mononitrate), Vitamin B2 (Riboflavin), Folic Acid

**The DV (daily value) for this nutrient includes the amount that was added back into the product after many naturally-occurring nutrients were removed during processing.*

Summary

Whole grains are a nutrient-dense food with many health benefits, but most children do not eat the recommended amount of whole grains daily.

Nutrient-dense foods and beverages are **high** in beneficial nutrients and relatively **low** in calories, added sugars and solid fats.

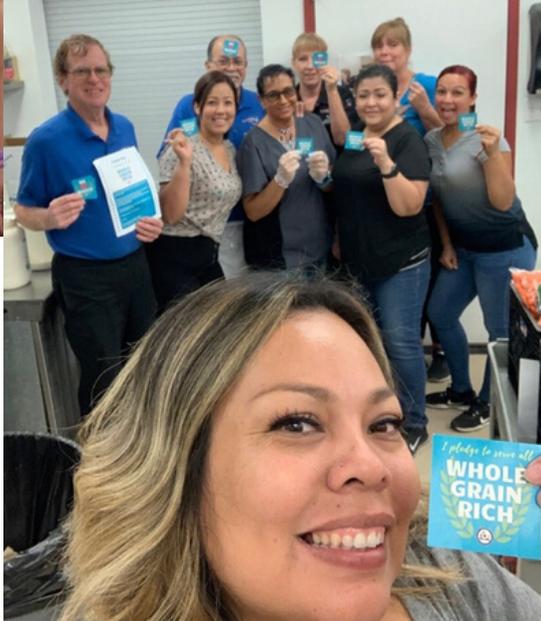
Whole Grain Pledge



ADE is inviting SFAs who desire to continue serving all whole grain-rich items in lieu of flexibilities to sign the Whole Grain Pledge.

Those who sign the pledge will receive stickers in the mail and be recognized on the ADE website.

Whole Grain Pledge



Whole Grain Pledge

Ready to take the pledge? Sign up here!

<https://www.surveymonkey.com/r/WholeGrainRichPledge>



Standout Story: Queen Creek USD

Standout Story: QCUSD

Dustin Walker, CDM, CFPP
Director of Child Nutrition
Queen Creek Unified School District



About QCUSD

- 11 sites
- PreK-12
- Enrollment: ~10,000
- 19% Free/Reduced



About QCUSD

Why QCUSD continues to serve 100% whole grain-rich items and signed the Whole Grain Pledge:

- Our motto each day is that *we are here to grow healthy students.*
- Students were used to whole grains so it did not seem valuable to us to switch to non-whole grain-rich products.



Taste Tests

WG Mac 'n' Cheese



- Previous product didn't hold well and had unpleasant texture
- Sampled 3 brands of Mac 'n' Cheese with students
- Students voted for one that was a blend of whole grain and white flour and had a softer texture

Cooking Techniques

Use batch cooking for heat-and-serve products



- Whole grain items can develop a chewy texture when sitting too long
- Batch cooking helps to maintain quality throughout meal service

Cooking Techniques

Cooking with long grain brown rice



- Long grain brown rice has a wonderful flavor when cooked right
- Steam the rice with plenty of water, DO NOT STIR to prevent stickiness
- Does take a little longer to cook

Cooking Techniques

Using USDA Foods WG Tortillas



- This product is great when cooked and prepared properly
- Example: when making breakfast burritos, we first wrap each burrito with foil and cook at a low temperature to avoid drying out

Cooking Techniques

House-made WG muffins



- Experimenting with different flavors
- Moisture is key when using WG flour
 - Pumpkin
 - Banana chocolate chip

Local Partnerships

Make connections with local vendors, chefs, restaurants, etc.



- Source WG-rich flour from Hayden Flour Mill
- Local chef to provide hands-on training on house-made pizza dough

Thank You!

Dustin Walker, CDM, CFPP
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Queen Creek Unified School District

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Instagram [@qcusd_child_nutrition](#)



 qcusd_child_nutrition • Following ...

 qcusd_child_nutrition There were a lot of empty bowls and full bellies as we served the students Chicken Alfredo!

13w

 Liked by foxc6nutrition and 23 others

NOVEMBER 7, 2019


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Resources

Whole Grains vs. Enriched Grains

A side-by-side comparison

Whole Grain	Refined/Enriched
Bran Antioxidants, B vitamins, fiber	
Endosperm Carbohydrates, some protein	
Germ B vitamins, vitamin E, antioxidants, healthy fats	
Fiber • Can help lower blood sugar and cholesterol • Promotes proper digestion • Underconsumed by most Americans	
B Vitamins • Support the body's ability to produce energy • Fight infection and help create blood cells • Aid in feeling energized	
Whole Grain Pasta 2 oz Serving	White 2 oz Se
<ul style="list-style-type: none"> Calories 190 Fat 1.5 g Saturated Fat 0 g Sodium 0 g Potassium 274 mg Total Carbs 39 g 	<ul style="list-style-type: none"> Dietary Fiber 0 g Sugars 1 g Protein 8 g Fiber 10% DV Phosphorus 25% DV Niacin 45% DV Folate 20% DV

Whole grains are more nutrient dense naturally - containing higher protein, potassium, fiber, iron, B vitamins, and antioxidants than refined grains.

The DV for this amount that was in product after many

Research Rundown

Article:
Whole grain consumption trends and associations with body weight measures in the United States: results from the cross sectional National Health and Nutrition Examination Survey 2001-2012

What did this study evaluate?

- The intake of total grain and whole grain consumption over a 12 year span in the US.
- The relationship between whole grain intake and adipose measurements in children and adults.

Key findings:

- Whole Grain consumption is associated with lower risk of developing type 2 diabetes, CAD, HTN, and a healthier weight in children.
- The main sources of grain intake for children were ready to eat cereals, bread and rolls, oatmeal and popcorn.
- Whole grain consumption is associated with better intake of other nutrients such as fiber, potassium, calcium, vitamin C, B vitamins, iron, zinc, magnesium, folate, and vitamin A and D.

Quick Conversation Guide: Whole Grains

TOPIC
Whole Grain Consumption in Schools

INTENDED AUDIENCE
Parents

TIME
10-20 minutes

SETTING
PTO/SHAC Committee Meeting

OBJECTIVE
Discuss the importance of consumption among students and possible actions that can be taken to increase consumption.

upLIFT MATERIAL & RESOURCES
Use the following resource: upLIFT page to help you be expert on Whole Grains!

- Research Rundown: Whole Grain Consumption Trends and Associations with Body Weight Measures in the United States
- Research Rundown: Whole Grain Consumption and Associations with Cardiovascular Disease and Cancer Cause Specific Mortality
- Nutrition Knowledge Fact Sheet: Enriched Grains
- Nutrition Knowledge Fact Sheet: Whole Grains
- Nutrition Knowledge Fact Sheet: Fiber

Ingredients Yield: 100 Servings

3 gal 1 qt) Water	1 lb 4 oz (1 gal 3 qt) Brown rice, long-grain, regular, dry
(1 Tbsp 2 tsp) Salt	(48 eggs) Fresh large eggs, beaten
(1 1/4 cups) Vegetable oil	3 lb (2 qt) Extra-lean turkey ham, diced 1/4"
1 lb 4 oz (2 qt) Fresh green onion, diced	10 lb (4 gal) Fresh spinach, chopped
(1/3 cup) Sesame oil	(1/4 cup) Low-sodium soy sauce

Source
McDougle Elementary School/Culbreth Middle School, Chapel Hill, North Carolina
Recipes for Healthy Kids Cookbook for Schools
Teamnutrition.usda.gov

Nutrients
Per Serving: 1 cup (8 fl oz spoonful)

Calories	238.44 cal
Protein	8.76 g
Carbohydrate	34.96 g
Dietary Fiber	3.24 g
Total Fat	7.09 g
Saturated Fat	1.36 g
Cholesterol	73.69 mg
Vitamin A	1960.62 IU
Vitamin C	0.82 mg
Iron	1.33 mg
Calcium	53.46 mg
Sodium	312.64 mg

- LEARN: Nutrition Knowledge Fact Sheets & Research Rundowns
- INSPIRE: Whole Grain Pledge signers and link to sign up
- FEED: Whole grain recipes **QCUSD Pumpkin Muffin!**
- TEACH: Whole Grain Quick Conversation Guide



Next Steps

Put it into action!

- Utilize *upLIFT* resources to become comfortable with your knowledge of the importance of whole grains and share it with your stakeholders
- Brainstorm ways you can make whole grains more acceptable to students
- Try a new whole grain recipe
- Explore the option of developing local partnerships to support you with serving whole grains
- When you are ready, sign the Whole Grain Pledge!

Next Steps

Join us next month!

#PlanYourBrand: Branding Your School Nutrition Programs

March 17, 2020

1:30pm - 2:00pm

In today's society, branding is everything! Your brand represents the perception of your program, including your reputation and values. A strong brand can bolster your program by increasing participation and providing direction for the future. In this webinar, we will discuss the concept of branding and how this can be successfully implemented in the school nutrition setting.



Remember!



CONTEST!

LEAs who attend or watch recordings for every upLIFT webinar from August until March will automatically be entered into a contest to receive a FREE culinary training for their staff from the Blue Watermelon Project.

*Submission of the online survey following completion of each recorded webinar is required in order to count these toward the contest.



Who Will Win?



FOOD FOR THOUGHT:

**EXPLORE THE
POTENTIAL OF
ARIZONA
SCHOOL
MEALS**



APRIL 7, 2020
DESERT WILLOW CONFERENCE
CENTER
4340 E Cotton Center Blvd
Phoenix, AZ 85040



upLIFT **CONTEST!**
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The winner of the contest will be announced at the April 7th Professional Development Event **Food for Thought: Explore the Potential of Arizona School Meals!**

A second culinary training will be raffled off at this event, and you must be present to win!

Register now in EMS!

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Thank you!

**Any questions?
Please type them into the chat bar now.**

If you are attending the live webinar, you will receive a link to complete the survey in EMS. After you complete the survey you can print a certificate of completion.

If you are watching the recorded webinar, you can access the survey link and certificate of completion at the end of the webinar slides.



Comprehension Check

Question #1

Match the following terms to the correct definition.

Refined Grain

A grain or grain product containing the original bran, germ, and endosperm

Whole Grain

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Enriched Grain

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Comprehension Check

Question #2

Which of the following nutrients is retained in a refined grain?

- a. Carbohydrates
- b. B vitamins
- c. Antioxidants
- d. Healthy fats

Comprehension Check

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Comprehension Check

Question #3

When cooking with whole grain flour, what is important to have for good texture?

- a. Salt
- b. Sugar
- c. Moisture
- d. Acid

Comprehension Check

Question #3

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- d. Acid

Congratulations!

You have completed the [Recorded Webinar: Standout Story: Whole Grains](#)

To request a certificate, please go to the next slide.

In order to count this training toward your Professional Standards training hours, the training content must align with your job duties.

Information to include when documenting this training for Professional Standards:

- Training Title: [Recorded Webinar: Standout Story: Whole Grains](#)
- Key Area: 1000-Nutrition
- Learning Codes: 1110
- Length: 0.5 hour

Please Note:

- Attendees must document the amount of training hours indicated regardless of the amount of time it takes to complete it.

Congratulations!

Requesting a Training Certificate

Please click on the link below to complete a brief survey about this webinar. Once the survey is complete, you will be able to print your certificate of completion from Survey Monkey.

*This will not appear in your Event Management System (EMS) Account.

<https://www.surveymonkey.com/r/upliftrecordedwebinar>

The information below is for your reference when completing the survey:

- Training Title: [Recorded Webinar: Standout Story: Whole Grains](#)
- Learning Codes: 1110