

The Nutrition Facts Label: What's New and What Remains?

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EXTENDING KNOWLEDGE >> CHANGING LIVES

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Quiz

- Many manufacturers must have the new Nutrition Facts labels in place in 2020. What is the level of annual sales for companies that will be required to have the new Nutrition Facts labels by 2020?
 - a. \$1 million
 - b. \$5 million
 - c. \$10 million
 - d. \$15 million

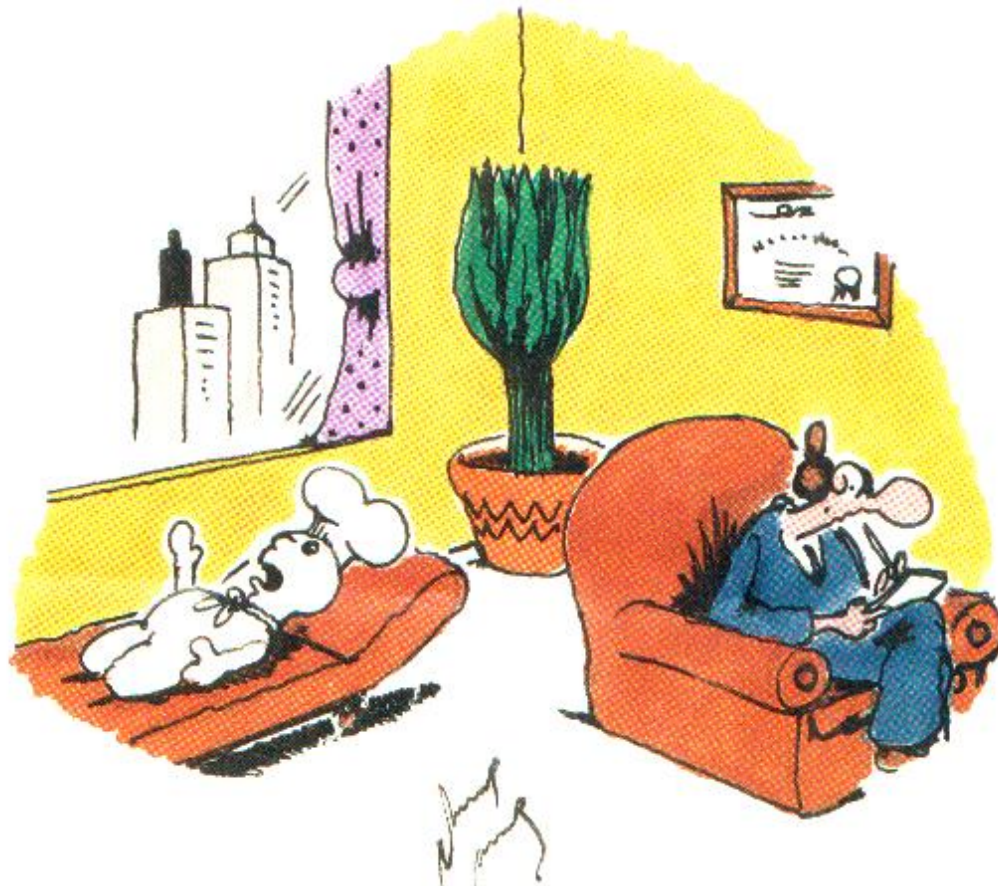
Quiz

Which of these is/are TRUE regarding nutrients that will appear on the nutrition labels for most food products?

- a. Vitamins A and C will be on the Nutrition Facts label.
- b. Sodium and protein will be on the Nutrition Facts label.
- c. Potassium and vitamin D will not be on the Nutrition Facts label.
- d. Fiber and total sugars will not be on the Nutrition Facts label.

Overview

- When/why did nutrition labeling begin?
- Why are labels changing?
- What are the changes?
- When do these changes have to be implemented?
- Review game (time permitting)



My girlfriend dumped me for some guy
with less carbs.

History (in Brief)

- Before 1960s: Little information on labels about nutrient content
- 1941-1966: if calorie or sodium content was listed, the food was “for special dietary uses”



- 1960s: More processed food appeared in grocery stores.



Nutrition Labeling Appears

- FDA developed nutrition labeling regulations in response to White House Conference
- 1973:
 - Calories
 - Protein (g)
 - Carbohydrate (g)
 - Fat (g)
 - Percent RDA for Vitamins A, C, thiamin, riboflavin, niacin, and the minerals, calcium and iron (**based on 1968 data**)
 - Sodium, saturated fat and polyunsaturated fat at discretion of manufacturer

Health Claims Prompted by two studies in 1980s:

- *The Surgeon General's Report on Nutrition and Health* (HHS, 1988)
- National Research Council's (NRC's) report *Diet and Health: Implications for Reducing Chronic Disease Risk* (NRC, 1989a)

“As consumers shop for healthier food, they encounter confusion and frustration... The grocery store has become a Tower of Babel and consumers need to be linguists, scientists and mind readers to understand the many labels they see” (HHS, 1989)

- Dr. Louis W. Sullivan, Secretary, HHS

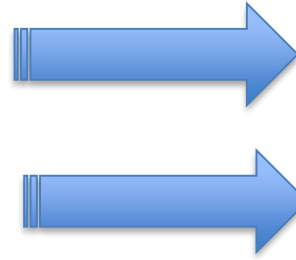
Nutrition Labeling and Education Act (1990)

- Only covered foods overseen by FDA
- Required nutrition labeling on most food packages and specified serving sizes as “amount customarily consumed”
- Voluntary nutrition labeling for raw fruits, vegetables and fish



The 1994 Nutrition Facts Label

- **Trans fat** (2006, became required)
- **Sugars** (included added PLUS natural sugars until now)



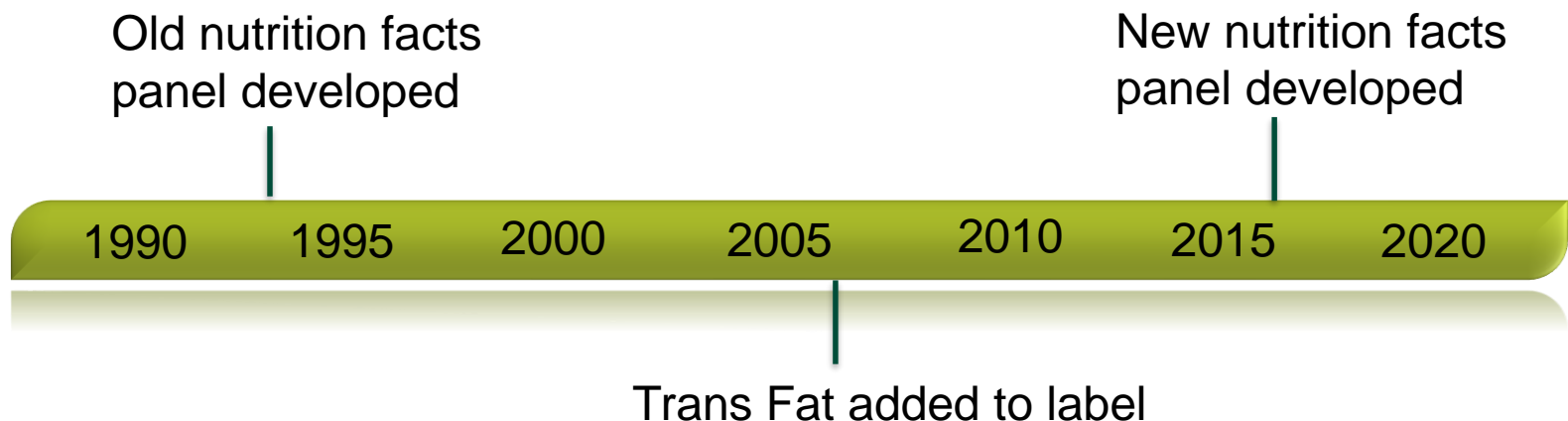
Nutrition Facts			
Serving Size 1 cup (228g)			
Servings Per Container 2			
Amount Per Serving			
Calories 260		Calories from Fat 120	
		% Daily Value*	
Total Fat	13g		20%
Saturated Fat	5g		25%
Trans Fat	2g		
Cholesterol	30mg		10%
Sodium	660mg		28%
Total Carbohydrate	31g		10%
Dietary Fiber	0g		0%
Sugars	5g		
Protein 5g			
Vitamin A 4%	•	Vitamin C 2%	
Calcium 15%	•	Iron 4%	
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Calories per gram:			
Fat 9	•	Carbohydrate 4	• Protein 4

Why are Labels Changing?

- Reflect new scientific research
 - Links between diet and chronic diseases including obesity and heart diseases
 - Allow consumers to make informed food choices
 - New rules - FDA on May 27, 2016



- Old nutrition facts panel developed in 1994
- No major changes since then
 - Exception = addition of trans fat in 2016



What are the changes?

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Original Label

Nutrition Facts

Serving Size 2/3 cup (55g)
Servings Per Container About 8

Amount Per Serving

Calories 230 Calories from Fat 72

% Daily Value*

Total Fat 8g **12%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **12%**

Dietary Fiber 4g **16%**

Sugars 1g

Protein 3g

Vitamin A 10%

Vitamin C 8%

Calcium 20%

Iron 45%

* Percent Daily Values are based on a 2,000 calorie diet.
Your daily value may be higher or lower depending on
your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

New Label

Nutrition Facts

8 servings per container
Serving size **2/3 cup (55g)**

Amount per serving

Calories **230**

% Daily Value*

Total Fat 8g **10%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **13%**

Dietary Fiber 4g **14%**

Total Sugars 12g

Includes 10g Added Sugars **20%**

Protein 3g

Vitamin D 2mcg 10%

Calcium 260mg 20%

Iron 8mg 45%

Potassium 235mg 6%

* 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.

What are the Changes?

- **Serving size**
 - larger, bolder font
- **Calories**
 - Larger
 - Largest size font on the label
 - No smaller than size 22 font

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
<small>* 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.</small>	

What are the Changes?

- **Updated Serving Sizes**
 - More realistic to portions consumed
 - Cereal changed from $\frac{3}{4}$ cup \rightarrow 1 cup
 - Ice cream changed from $\frac{1}{2}$ cup \rightarrow $\frac{3}{4}$ cup
 - Bagels changed from $\frac{1}{2}$ bagel \rightarrow whole bagel



FOOD SERVING SIZES GET A REALITY CHECK

Serving Size Changes

What's considered a single serving has changed in the decades since the original nutrition label was created. So now serving sizes will be more realistic to reflect how much people typically eat at one time.

CURRENT SERVING SIZE



NEW SERVING SIZE



What are the Changes

- **Single sitting packages**
 - Must include calories for entire package in addition to their standard serving
 - Common for bags of chips, cookies, or bottles of pop



Packaging Affects Servings

Package size affects how much people eat and drink. So now, for example, both 12 and 20 ounce bottles will equal 1 serving, since people typically drink both sizes in one sitting.



**1 SERVING PER BOTTLE
FOR EITHER BOTTLE SIZE**

Nutrition Facts

Approx. 16 crisps

Serving size

1 oz. (28g)

	Per serving		Per can	
Calories	150		360	
	% DV*		% DV*	
Total Fat	9g	12%	22g	28%
Saturated Fat	2.5g	13%	6g	30%
Trans Fat	0g		0g	
Cholesterol	0mg	0%	0mg	0%
Sodium	160mg	7%	370mg	16%
Total Carb.	16g	6%	37g	13%
Dietary Fiber	<1g	3%	2g	7%
Total Sugars	0g		1g	
Incl. Added Sugars	0g	0%	0g	0%
Protein	1g		3g	
Vitamin D	0mcg	0%	0mcg	0%
Calcium	0mg	0%	7mg	0%
Iron	0.1mg	0%	0.4mg	2%
Potassium	125mg	2%	300mg	6%

* 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.

What are the Changes?

- **Updated % Daily Values**
 - Important to help consumers relate the nutrition to the context of an entire day's diet
- Reflects new scientific evidence used to create the 2015-2020 Dietary Guidelines for Americans

Nutrient	Old DV	New DV	Increased/ Decreased
	Age ≥ 4 years	Age ≥ 4 years	
Fat (g)	65	78	↑
Saturated fat(g)	20	20	
Cholesterol (mg)	300	300	
Total carbs (g)	300	275	↓
Sodium (mg)	2,400	2,300	↓
Dietary Fiber (g)	25	28	↑
Protein (g)	50	50	
Added Sugars (g)	N/A	50	↑
Vitamin D (mcg)	400 IU (10 mcg)	20 mcg	↑
Calcium (mg)	1,000	1,300	↑
Iron (mg)	18	18	
Potassium (mg)	3,500	4,700	↑

What are the Changes?

- General Guide for %DV
 - **<5% DV** of a nutrient is considered low
 - **>20% DV** of a nutrient is considered high

What are the Changes?

- **Includes added sugars**
 - Previously just included “total sugars”
 - Now must include added sugars in grams and as %DV (50g/day)
 - Certain exceptions for single ingredient sugar products

What are the Changes?

- What's the difference between added and total sugar?
 - Total sugars = natural sugar + added sugar

Note: added sugars are included in total sugars, but listed separately as well to indicate how much sugar has been included

What are the Changes?

- Exceptions to “Added Sugars”
 - The Farm Bill rules:
 - Single ingredient sugar products do not need to use the words “includes x grams of added sugars”
 - Still must include percent daily value of added sugars
 - Includes honey, agave, syrups, and certain cranberry products

Nutrition Facts

16 servings per container

Serving size 1 Tbsp. (21g)

Amount per serving

Calories 60

% Daily Value*

Total Fat 0g 0%

Saturated Fat 0g 0%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 0mg 0%

Total Carbohydrate 17g 6%

Dietary Fiber 0g 0%

Total Sugars 17g 34%†

Protein 0g

Vitamin D 0mcg 0%

Calcium 0mg 0%

Iron 0mg 0%

Potassium 0mg 0%

* 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.

† One serving adds 17g of sugar to your diet and represents 34% of the Daily Value for Added Sugars.

Nutrition label
for **honey**
- A Single
Ingredient Sugar

What are the Changes?

- **Change in nutrients required**

Old Nutrients	New Nutrients
Calcium	Calcium
Iron	Iron
Vitamin A	Vitamin D
Vitamin C	Potassium

What are the Changes?

- **Nutrient Changes**
 - Old: Vitamin A and Vitamin C
 - Eliminated because deficiencies are rare
 - New: Vitamin D and Potassium
 - Added because Americans do not get enough
- Must include actual amount in mg or mcg in addition to %DV

What are the Changes?

- Removed calories from fat
- Still requires
 - “Total Fat”
 - “Saturated Fat”
 - “Trans Fat”

Nutrition Facts	
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Serving size	2/3 cup (55g)
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% Daily Value*	
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Why the Changes in Fat?

- Research shows that the type of fat is more important than how much total fat
- Including calories from fat undermines the different kinds of fat and is misleading



What are the Changes?

- **Actual Amounts Declared**
 - In addition to %DV
 - Needed for Vitamin D, Calcium, Iron, and Potassium
- Actual amounts can be voluntarily included for any other vitamins and minerals as well

What are the Changes?

- **New footnotes**
 - Better explains what %DV means
 - Easier to understand

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Old

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New

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Implementation

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Implementation

- Deadlines to make these changes
 - Manufacturers with at least \$10 million in annual sales
 - Jan 1, 2020
 - Manufacturers with less than \$10 million in annual sales
 - Jan 1, 2021

Implementation

Exceptions

- Single ingredient sugars
 - Honey, maple syrup, certain cranberry products
 - July 1, 2021
- Flavored dried cranberries
 - July 1, 2020



Has Labeling Made a Difference So Far?



2018 Analysis of 60 Studies

- 11 interventions
- 2 million people
- 11 countries

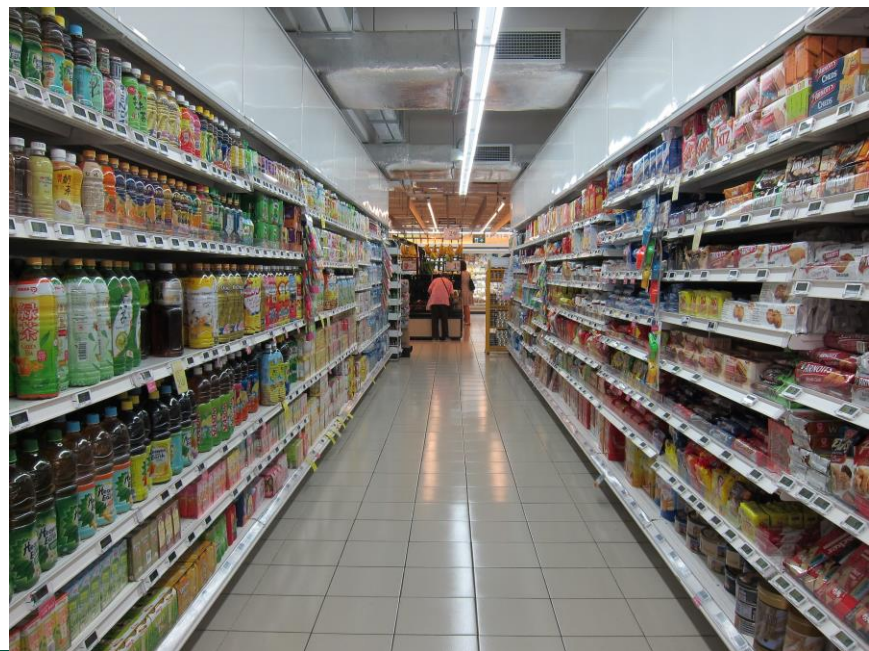
Dariush Mozaffarian & Siyi Shanguguan. 2018. A Meta-Analysis of Food Labeling Effects on Consumer Diet Behaviors and Industry Practices, American Journal of Preventive Medicine, 56(2)

Results on Consumer Behavior

- Reduced calories by 6.6%
- Reduced total fat by 10.6%
- Reduced “unhealthy” choices by 13%
- Increased vegetable intake by 13.5%
- **Little evidence** that food labels affected total carb, protein, saturated fat, sodium or consumption of fruits, whole grains, etc.

Results on Industry Products

- Reduced trans fat in food by 64%
- Reduced sodium by 8%
- Little effect on saturated fat, fiber and other components



Suggestions by Authors

- Simple concepts work better
- Labels work best for calories, total fat
- Do not work as well for complex nutrition concepts
- Labels nudge companies to reduce trans fat and sodium but have not influenced complex targets (saturated fat or dietary fiber)

Quiz

- Many manufacturers have to have the new Nutrition Facts labels in place in 2020. What is the level of annual sales for companies that will be required to have the new Nutrition Facts labels by 2020?
 - a. \$1 million
 - b. \$5 million
 - c. \$10 million
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Quiz

Which of these is/are TRUE regarding nutrients that will appear on the nutrition labels for most food products?

- a. Vitamins A and C will be on the Nutrition Facts label.
- b. Sodium and protein will be on the Nutrition Facts label.**
- c. Potassium and vitamin D will not be on the Nutrition Facts label.
- d. Fiber and total sugars will not be on the Nutrition Facts label.

References

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Images

https://www.whio.com/rf/image_lowres/Pub/p6/WHIO/2015/09/04/Images/photos.medleyphoto.8070255.jpg

<https://s3.envato.com/files/264480008/28253.jpg>

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<https://pikfly.com/images/products/140/38283.jpg>

Let's Play!

Nutrition Label Bingo

Nutrition Facts	
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Serving size	2/3 cup (55g)
<hr/>	
Amount per serving	
Calories	230
<hr/>	
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Total Fat 8g	10%
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Question 1

Prior to the 1960s, what information was listed on food products for special dietary uses?

Answer 1

Calorie and sodium content

Question 2

What act from 1990 required nutrition labeling on most food packages?

Answer 2

Nutrition Labeling and Education Act

Question 3

Which food component was required on foods in 2006 because of its link to raising LDL bad cholesterol and lower HDL (good) cholesterol?

Answer 3

Trans fat

Question 4

Which item is printed in the largest font on the 2020 Nutrition Facts labels?

Answer 4

Calories

Question 5

What is different about serving sizes on the 2020 Nutrition Facts label?

Answer 5

More realistic

Question 6

Which component on the nutrition label helps consumers see how their nutrition choices relate to the entire day's food?

Answer 6

%Daily Value

Question 7

Which components on the 2020 Nutrition Facts labels decreased in terms of the Percent Daily Value?

Answer 7

Sodium and Total Carbohydrate

Question 8

Which nutrients are NEW to the Nutrition facts label?

Answer 8

Vitamin D and Potassium

Question 9

Which government organization oversees nutrition labeling?

Answer 9

FDA

Question 10

A nutrient with 5% of the Daily Value is considered low in that nutrient.

Answer 10

True

Question 11

What is an example of a single ingredient food, which also can be a sweetener?

Answer 11

Honey

Question 12

Which nutrients are no longer on the 2020 Nutrition Facts label?

Answer 12

Vitamins A and C

Question 13

True or False: Saturated fat no longer appears on the Nutrition Facts label.

Answer 13

False

Question 14

What year did nutrition labeling first appear on many food products?

Answer 14

1973

Question 15

Which mineral is important for maintaining a healthy blood pressure, among its many functions?

Answer 15

Potassium

Question 16

Where would lactose (in milk) appear on the Nutrition Facts label?

Answer 16

Sugars

Question 17

What is the name for a 20-ounce bottle of pop consumed as one serving?

Answer 17

Single sitting package

Question 18

Which nutrient is important for building bones, among other functions, and is new to Nutrition Facts labels?

Answer 18

Vitamin D

Question 19

In addition to trans fat, which type of fat is linked with heart disease?

Answer 19

Saturated fat

Question 20

Which bone-building mineral is required on Nutrition Facts labels and the daily recommendation has increased?

Answer 20

Calcium

Question 21

Which mineral remains on the Nutrition Facts label at the same amount as previous?

Answer 21

Iron

Question 22

What acronym does the footnote on a Nutrition Facts label indicate?

Answer 22

DV (Daily Value)

Question 23

Why are Nutrition Facts labels placed on food?

Answer 23

Inform consumers

Question 24

Which government organization oversees meat inspection and safety (such as meat at the butcher counter in the grocery store)?

Answer 24

USDA