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# SHOULD THE USE OF TRANSFATS IN FOODS BE REGULATED?

Word Generation - Unit 3.19

## Focus Words

compile | odds | predominantly | widespread | regulation

## Weekly Passage

The odds are high that you have eaten many foods with trans fats, a kind of oil, in the last few days. The use of trans fats is widespread. Predominantly found in fried and baked foods, such as French fries, doughnuts, cookies, pizza, and pastries, trans fats give these foods their delicious flavor and appealing texture. Manufacturers use trans fats because they help foods stay fresher longer. Researchers estimate that the average American consumes 5.8 grams of trans fats per day.

Trans fats are inexpensive to produce, so using them can lower the cost of producing food. But researchers say that people who eat foods with trans fats are more likely to have heart disease, strokes, and diabetes. The American Heart Association recommends we each limit the trans fats we consume to 2 grams per day. They say that the complete elimination of trans fats from the American diet would reduce heart disease by 10-20%.

In the U.S., big food chains like Starbucks and Wendy's have already stopped using trans fats. The city of New York passed a regulation banning trans fats from restaurants.

Some countries, like Denmark, have banned trans fats from all foods. Some people say the U.S. should ban all trans fats, too.

Others are against banning trans fats. They argue that it is the consumer's responsibility to decide what to eat and what to avoid eating. They think people are capable of using their own discretion. They say the government should compile data about trans fats to help educate consumers about this health issue, but let consumers make their own choices. People who are opposed to banning trans fats also point out that if people limit themselves to 2 grams per day, trans fats may not be a major health risk. Besides, these people say, Americans value freedom and their freedoms should include freedom to choose the treats you like.

What do you think? Should the government ban trans fats?

### TEACHER: Discussion Questions

- What are some foods that have trans fats?
- Why do some companies prepare foods with trans fats?
- What does research say about the effects of trans fats on people? Why do some people think banning trans fats is a public health issue?
- Do you think the regulation banning trans fats from restaurants in some American cities will be effective?

## Unit 3.19 - Should the use of trans fats in foods be regulated?

### Focus Word Chart (teacher version)

Word	Meaning	Forms			Related Words
		Inflectional	Basic Word Classes	Prefixes/ Suffixes	
widespread	(adj.) - found over a wide area		spread		
predominantly	(adv.) - greater in number or influence	predominant	dominant	predominance predominate	dominate domain
regulation	(n.) - order telling how something is to be done	regulations	regulate (v.)	regulatory unregulated regulated	regular
odds	(n.) - the probability or chance that something will happen or be so				odds by all odds
compile	(v.) - collect	compiles compiled compiling		compiler compilation	

# Unit 3.19 - Should the use of trans fats in foods be regulated?

## Problem of the Week



**Option 1:** When scientists and researchers **compiled** data about the dangers of trans fats, fast food restaurants got worried! They wanted to avoid legal **regulation**, so they began working to find alternatives to trans fats. Today, many fast food restaurants have menus that are **predominantly** trans fat-free. So, the **odds** are good that your fast food meal has only a few grams of trans fats, and it may even be trans fat-free. Still, most fast foods are high in calories, salt, sugar, and saturated fats.

Today, the Kentucky Fried Chicken (KFC) Chicken Pot Pie is trans fat-free.\* But before worries about trans fats became **widespread**, a Chicken Pot Pie contained 14 grams of trans fats. The American Heart Association recommends that a person eat only 2 grams of trans fats each day. How many days worth of trans fats were in one of the old KFC Chicken Pot Pies?

A) 10

B) 5

C) 7

D) 14

\*However, KFC's Chicken Pot Pie has a 790 calorie count, 410 of which are from fat. They contain 37 grams of saturated fats.

**Option 2:** Concern about the American diet is **widespread**. We all know that we should **regulate** our junk food intake. Jerrod, a sixth grader, eats **predominantly** at fast-food restaurants. He has **compiled** nutritional information from his favorite restaurants, and tries to make healthy choices. On Tuesday, he will choose one of two McDonald's breakfasts and one of three McDonald's lunches from the tables below.

Possible Breakfasts	Grams of Trans fats
McSkillet Burrito with Steak	1
Sausage Burrito	.5

Possible Lunches	Grams of Trans fats
Quarter Pounder	1
Double Cheeseburger	1.5
Angus Bacon & Cheese	2

Assuming that all combinations are equally likely, what are the **odds** that Jerrod will eat more than the American Heart Association's (AHA) daily recommendation of 2 grams of trans fats on Tuesday?

A) 1/6

B) 1/3

C) 1/4

D) 1/2

**Math Discussion Question:** Why did fast food restaurants cut back on trans fats? Was it the **widespread** worries about the American diet? Was it **predominantly** a desire to avoid **regulation**? What are the **odds** that fast food restaurants just wanted to help people be healthier? If you **compiled** a list of reasons for the change, what reasons would be on the list?

# Should the use of trans fats in foods be regulated?

## Debating the Issue



# GO!

## I. Get ready...

Pick one of these positions (or create your own).

**A** Foods prepared with trans fats are bad for your health. Trans fats should be totally banned by the government.

**B** Trans fats should not be banned. Consumers should make their own choices about what they eat. The government should educate the population about the risks of eating foods with trans fats but then let people make their own decisions.

**C** Trans fats should be banned, but the government should find ways to make healthy foods more affordable.

**D** The government should not ban trans fats. It should issue a regulation taxing the industries that produce food with trans fats. In this way, the government can help pay for the medical expenses of people who suffer the consequences of including trans fats in their diets.

**E** \_\_\_\_\_  
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## 2. Get set...

Be ready to provide evidence to back up your position during your class discussion or debate. Jot down a few quick notes:

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Be a strong participant by using phrases like these.

*I think it's more accurate to say...*

*That's interesting - can you tell why you think that?*

*I think the evidence is contrary to what you're saying because. . .*

*Let me share something from the reading that will help us...*

### TEACHER

Whatever debate format you use in your class, ask students to use academically productive talk in arguing their positions. In particular, students should provide reasons and evidence to back up their assertions. It may be helpful to read these sample positions to illustrate some possibilities, but students should also be encouraged to take their own positions on the issue at hand.

# Unit 3.19 - Should the use of trans fats in foods be regulated?

## Science Activity



This activity is designed to help you practice thinking like a scientist and to use this week's focus words. Sometimes the data are based on real research, but they should never be considered true or factual.

Professor Seemy and Professor Kahn were discussing the increasing **predominance** of obesity in America. How much has the **widespread** use of trans fats contributed to this problem? Does eating trans fats increase the **odds** that a person will become obese? They decided to do an experiment by finding 200 volunteers and asking half of them to stop eating trans fats for one month. The professors **compiled** data about each volunteer's body mass index (BMI), which represents how healthy a person's weight is. People with a BMI of 30 or higher are considered obese.

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### Question:

How does eliminating trans fats from a diet affect a person's BMI?

### Hypothesis:

Eliminating trans fats from your diet will lower your BMI.

### Materials:

- ▶ Transfat Recording Form
- ▶ Body Mass Indicator (BMI)

### Procedure:

1. Recruit a group of 200 volunteers.
2. Measure and record each volunteer's BMI.
3. Choose 100 volunteers and ask them to eliminate trans fats from their diet for the next month. Everything else must stay the same: the amount they exercise, the other kinds and amounts of food they eat.
4. At the end of the month, compile and analyze the data.

### Data:

	Average BMI <b>before</b> experiment	Average BMI <b>after</b> experiment
People who did NOT eat trans fats	26.32 kg/m <sup>2</sup>	22.26 kg/m <sup>2</sup>
People who did eat trans fats	25.81 kg/m <sup>2</sup>	26.09 kg/m <sup>2</sup>

#### BMI:

18.5-24.9 - *Normal*

25-29.9 - *Overweight*

30 and above - *Obese*

### Conclusion:

Is the hypothesis supported or not by the data?

Supported

What evidence supports your conclusion?

People who eliminated trans fats from their diet decreased their BMI by 3.74 kg/m<sup>2</sup>.  
People whose diets did not change did not have a significant decrease in their BMI.

How would you make this a better experiment?

Encourage students to consider sample size, number of trials, control of variables, whether the procedure is a true measure of the question, whether the experiment can be repeated by other scientists, data collection and recording systems, and other potential explanations for the outcome. Students should understand that these simple experiments represent the beginning of an exploration, not the end. If time permits, have students suggest how the experiment could be strengthened, emphasizing the use of the target words in the discussion.



Support your position with clear reasons and specific examples. Try to use relevant words from the Word Generation list in your response.

compile | odds | predominantly | widespread | regulation

Check off what you accomplished:

☐ Included 1 focus word

- ☐ Included 1-2 focus words

☐ Used 2-5 focus words

Put the writing prompt on the overhead projector (or the board) so that everyone can see it. Remind students to refer to the word lists in their Word Generation notebooks as needed.

**Source References:**

- » Dansinger, M. (2006, December 18). Ban transfats in 2007. MedGenMed, 8(4), p. 58. Medscape General Medicine. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1868327/>
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- » Gosline, A. (2006, June 12). Why fast foods are bad, even in moderation New Scientist. Retrieved August 21, 2008 from <http://www.newscientist.com/article/dn9318>
- » Severson, K. (2007, March 7). Trans fat fight claims butter as a victim. The New York Times. Retrieved from: <http://www.nytimes.com/2007/03/07/dining/07tran.html>

**Resources**

- » American Heart Association. (2008, May). Trans Fats. Retrieved August 21, 2008 from <http://www.americanheart.org/presenter.jhtml?identifier=3045792>
- » Trans fats. (n.d.). Retrieved August 21, 2008 from Wikipedia: [http://en.wikipedia.org/wiki/Trans\\_fats](http://en.wikipedia.org/wiki/Trans_fats)