

Name _____

Period _____

Part 1: Is there something in turkey that makes you sleepy?

5 pts extra credit



Turkey does have the makings of a natural sedative in it, an amino acid called tryptophan. Tryptophan is an essential amino acid, meaning that the body cannot manufacture it. The body

has to get it and other essential amino acids from food.

Tryptophan helps the body produce the B-vitamin niacin, which, in turn, helps the body produce serotonin, a remarkable chemical

that acts as a calming agent in the brain and plays a role in sleep. So you might think that if you eat a lot of turkey, your body would produce more serotonin and you would feel calm and want a nap.



That was the conclusion that led many people to begin taking a dietary supplement of tryptophan in the 1980s as a way to treat insomnia, but the US Food and Drug Administration banned tryptophan supplements in 1990 because of an outbreak of eosinophilia-myalgia, a syndrome that causes muscle pain and even death. The FDA said contaminated tryptophan supplements caused the outbreak.

But nutritionists and other experts say that the tryptophan in turkey probably won't trigger the body to produce more serotonin because tryptophan works best on an empty stomach. The tryptophan in a Thanksgiving turkey has to vie with all the other amino acids that the body is trying to use. So only part of the tryptophan makes it to the brain to help produce serotonin.

It is the whole traditional Thanksgiving meal that can produce that after-dinner lethargy. The meal is quite often heavy and high in carbohydrates—from mashed potatoes, bread, stuffing, and pie—and your body is working hard to digest that food. Also, if you drink alcohol with your dinner, you will likely feel its sedative effect, too.

There is a way to take advantage of the tryptophan in turkey. If you have trouble getting to sleep one night while there is still leftover turkey in the refrigerator, you could have a late night snack of turkey and that, nutritionists say, might be the right amount of tryptophan on an empty stomach to help produce some serotonin.

1. Have everyone at your dinner table read the article above and then have them sign their names below.

Part 2: Elements of a Great Thanksgiving!

Introduction: There are currently 25 elements identified by the FDA as “essential” for good health. These elements, classified as “major,” “lesser,” and “trace,” are listed in the table below.

MAJOR (Make up 99% of your body mass)	LESSER (Build body tissues and maintain cell processes)	TRACE (Essential to important functions such as forming bones, teeth, & red blood cells)	
H-Hydrogen	Fe-Iron	V-Vanadium	Sn-Tin
O-Oxygen	K-Potassium	Cr-Chromium	Si-Silicon
C-Carbon	Zn-Zinc	Mo-Molybdenum	Se-Selenium
N-Nitrogen	Na-Sodium	Mn-Manganese	F-Fluorine
P-Phosphorus	S-Sulfur	Co-Cobalt	I-Iodine
Ca-Calcium	Cl-Chlorine	Cu-Copper	
	Mg-Magnesium	B-Boron	

INSTRUCTIONS:

1. During Thanksgiving, read the nutrients and/or ingredients listed on the labels of several items (gravy packet, potato flakes, cranberry sauce, stuffing, soda, etc.) from your Thanksgiving meal.
2. Identify any elements listed.
3. Record the item name, element identified, Group # (1A-8A or transition metals), Group Name (alkali metal, etc.), and classify the element as a Major, Lesser, or Trace nutrient in the Data Collection Table Below.

*** Elements may be combined in chemical compounds. For example, the ingredient “calcium chloride” contains both elements Ca and Cl. The ingredient, “sodium phosphate” contains elements Na, P, and O. The elements C, H, and O are contained in most acids, fats, carbohydrates, and proteins. ***

Item Name	Element	Group #	Group Name	Major, Lesser, or Trace
1				
2				
3				
4				
5				

Element Trivia:

1. Identify the transition metal used to color ranch dressing. _____
2. Identify one transition metal in any can of nuts. _____
3. Identify the compound used to keep instant potato flakes, gravy powder, or parmesan cheese from sticking together. _____
4. Identify the element that settles your tummy and is contained in Pepto Bismol _____