

Student Name: _____

Course: _____

Reading Guide for Chapter 4 of Unsafe At Any Meal by Dr. Dufault

Directions: Review all of the questions below. Begin reading Chapter 4 of your book Unsafe at Any Meal: What the FDA Does Not Want You to Know about the Foods You Eat. As you read, answer the questions related to the content found between **pp. 59-75**.

Heavy Metal Exposures from Processed Food Ingredients

1. The most common heavy metals found as residues in the food supply include which of the following:
 - a. lead
 - b. inorganic mercury
 - c. cadmium
 - d. arsenic
 - e. all of the above

2. The amount of heavy metals in foods eaten by adults and children correspond to the heavy metal levels found in their blood. True or False

3. Explain why increasing heavy metal levels in your blood can become a problem as you age.

4. The average American consumes 16 pounds of vegetable oil each year. True or False

5. What is FEDIOL and what report did they publish?

6. How has cooking or refined vegetable oil consumption by Americans changed since 1970 (Hint: see Table 4.2)?

7. How does the inorganic mercury residue get into the refined vegetable oil?

8. What compound is deliberately added to corn starch to prevent the production of enzymes by bacteria? _____
9. The corn sweetener manufacturing process involves the use of a mercury compound called *mercuric chloride*. True or False
10. Which of the following are corn sweeteners that may contain mercury residue?
- a. corn syrup
 - b. dextrose
 - c. high fructose corn syrup
 - d. maltodextrin
 - e. modified corn starch
 - f. all of the above
11. What evidence is there to suggest that eating a lot of food products with a corn sweetener ingredient in them may lead to elevated inorganic mercury levels in your blood?

12. Which of the corn sweeteners do you think is most commonly found in the food supply?

13. How has the *type* of sugar being consumed by Americans changed since 1970 (Hint: see Table 4.4)?

14. Eating many products containing HFCS may lead to changes in the way some of your genes function and reductions in your dietary intake of life-sustaining vitamins and minerals. True or False

15. In the European Union and United Kingdom, some food packaging has to carry a mandatory warning label. Why?

16. Eating food products that contain certain food colors causes hyperactivity in children. True or False

17. Which of the following food colors have allowable mercury *or* lead residues?

- a. Yellow 5
- b. Yellow 6
- c. Red 40
- d. Annatto
- e. Caramel
- f. all of the above

18. Sodium benzoate is a _____ with allowable impurities of _____ and _____.

19. Explain how we now know sodium benzoate is involved in creating conditions of hyperactivity in children.

20. Explain why heavy metal exposures may lead to inflammation, stress and the development of disease conditions.

21. What is metallothionein and which gene is responsible for its production? What does it do for your body?
