The brain's survival instincts of the past help to avoid tempting foods and weight gain.

Which of the following statements about the brain is true?

- In relationship to food, which chemical is the "habituation" to:
  - a. Serotonin
  - b. Dopamine
  - c. Melatonin
- The brain is protected from inflammatory molecules by:
  - a. Metabolizing protein into amino acids
  - b. Producing heat to elevate core body temperature
  - c. Storing fat for future energy needs
  - d. None of the above
- White adipose tissue specializes in:
  - a. Metabolizing protein into amino acids
  - b. Producing heat to elevate core body temperature
  - c. Storing fat for future energy needs
  - d. None of the above
- In the prefrontal cortex, which statements are true?
  - a. Are only observed in a state of dementia
  - b. Have various shapes based on activity of the brain
  - c. Store neurochemicals during deep sleep
  - d. Essential amino acids
- The neocortex of the brain has pyramidal neurons that:
  - a. Are a feature of your blood-brain barrier
  - b. Protect the membrane
  - c. Protect oil
  - d. All of the above
- Essential fatty acids are:
  - a. From oils
  - b. From vegetable sources
  - c. Essential for the flow of energy in the brain
  - d. Essential for the production of prostaglandins
- The best food source of vitamin D (per serving) is:
  - a. Liver
  - b. Tuna
  - c. Salmon
  - d. Olive oil
- Which of the following statements is false?
  - a. Sudden, unexplained, rapid weight loss precedes dementia by decades.
  - b. BMI is a better predictor of dementia than waist circumference.
  - c. The relationship between adiposities and dementia is reduced in very elderly persons.
  - d. Increased consumption of fish before age 65, may reduce the risk of dementia.
- 17. You can cut in half the consumption of sweets by blocking:
  - a. opioid receptors
  - b. GABA receptors
  - c. Serotonin receptors
  - d. None of the above
- The Ten Step Program recommends all of the following guidelines EXCEPT:
  - a. a "buddy" dramatically improves chances of success
  - b. to decrease your intake of food, eat with friends
  - c. add sleep to your personal plan for meals
  - d. chewing decreases appetite and caloric intake
- Tissue necrosis factor-alpha:
  - a. Initiates inflammation in the body and brain
  - b. Increases liver production of C-reactive protein
  - c. Is released by chronically enlarged fat cells
  - d. All of the above
- Which structure in the brain is highly sensitive to oxidative damage?
  - a. Nucleus
  - b. Retina
  - c. Mitochondria
  - d. None of the above
- Which of the following statements is false?
  - a. Excess belly fat at midlife is a predictor of dementia after age 65.
  - b. BMI is a better predictor of dementia than waist circumference.
  - c. The relationship between adiposities and dementia is reduced in very elderly persons.
  - d. Increased consumption of fish before age 65, may reduce the risk of dementia.
- The core material in the brain is:
  - a. Lipoic acid
  - b. Protein
  - c. Vitamins & minerals
  - d. All of the above
- Borage oil is an excellent source of:
  - a. EPA
  - b. DHA
  - c. GLA
  - d. ALA
- The role(s) of antioxidants:
  - a. Neutralize reactive oxygen species
  - b. Protect oils from rancidity
  - c. Protect the membrane
  - d. All of the above
- Which nutrient is part of the antioxidant network?
  - a. Folate
  - b. Lipic acid
  - c. Vitamin B12
  - d. All of the above
- 30. The best food source of vitamin D (per serving) is:
  - a. Milk
  - b. Wild salmon
  - c. Farm salmon
  - d. Sardines