

FATS AND OILS STUDY GUIDE

KEY

Name _____ Period ____ Assign #

1. Define:

FAT - an essential nutrient that provides the body with energy found in food and utilized by the body

OIL - fats that are liquid at room temperature

LIPIDS - a family of chemical compounds, which include fats and oils

CHOLESTEROL - a fat-like substance made of glucose or saturated fatty acids

2. Fat is called the best source for energy. Why?

serves well in emergencies when extra fuel is needed

3. List the functions of fat in the body.

supplies heat, energy, carries Vit. A, D, E, and K through intestinal system, and acts as a storage for body reserves

4. Why does fat keep the body from being hungry?

remains in the body longer than other foods and gives a sensation of being full

5. Why does the body need fatty acids?

they transport other molecules such as fat-soluble vitamins

6. Name the two kinds of fatty acids found in fats.

1. saturated 2. polyunsaturated 3. monounsaturated

7. What are saturated fatty acids?

fats usually from animal sources (cheese, milk, meat, palm oil, coconut oil) and are usually solid at room temperature

8. What are monounsaturated fatty acids?

usually semi-solid or liquid at room temperature such as vegetable or fish oils

9. What are poly-unsaturated fatty acids?

found in vegetables and fish - generally are semi-liquid at room temperature

10. What is trans fat?

Fat found in snack foods. Made when unsaturated fat molecule is chemically changed.

11. What is visible fat?

can be detected by the eye such as the fat on and around the animal muscles

12. How do fat soluble vitamins affect the fats consumed by the body?

they protect the body's organs from injury and insulate against shock and temperature changes.

13. Name four fat soluble vitamins.

A D E K

14. What are the richest sources of fat in the diet?

animal tissue, milk products, egg yolks (anything that can walk, swim or fly)

15. Define:

HYDROGENATION - process that causes fats and oils to become more solid

BUTTER - fat extracted from milk and churned into a solid

MARGARINE - a butter substitute made with fat from plant sources

LARD - extracted from animal fats

VEGETABLE OILS - oils extracted from plant sources

VEGETABLE SHORTENINGS - a blend of oils hydrogenated to become solid

16. What does rancid mean? How can it be identified in fats?

the spoilage of fat - a chemical reaction takes place when oils or solid fats are exposed to the air for long periods of time - it has a strong unpleasant odor

17. Fats add flavor to food. Which fats add the most flavor?

animal and fish fats - butter, bacon, olive oil give distinctive flavor

Which fats add the least flavor?

vegetable oils

18. Why is it important to store fats and oils in tightly covered containers?

to prevent excessive exposure to air, to prevent spoilage

19. What happens when fats are heated to high temperatures?

smokes, fatty acids break down and can change flavor of food

20. When using fat in a deep-fat fryer what precautions need to be taken?

control temperature, can burn the skin severely

21. Can the microwave oven be used to deep-fat fry? Why?

NO - temperature cannot be controlled and fat will splatter