Name _Teacher Key_   Science of Nutrition II

Date_____   Block _____

Study Guide- Chapter 11- Diet and Health

1. Two main kinds of diseases afflict people around the world: **infectious** diseases and **chronic** diseases. What are infectious diseases? _diseases that are caused by bacteria virus, parasites, and other microbe's + can be transmitted from one person to another_

What are some examples of infectious diseases? _Tuberculosis, small pox, influenza, polio_

What are chronic diseases? _Diseases characterized by slow progression long duration, and degeneration of body organs due in part to lifestyle choices_

What are some examples of chronic diseases? _Heart disease, cancer, degenerative diseases_

2. What are the ten leading causes of death in the US?
   1. Heart disease
   2. Cancer
   3. Strokes
   4. Chronic lung diseases
   5. Accidents
   6. Alzheimer's disease
   7. Diabetes mellitus
   8. Pneumonia & influenza
   9. Kidney diseases
   10. infections of the blood

3. Approximately how many deaths are diet linked? _~ 472   Deaths per 100,000 population_

4. A well-nourished immune system provides the best protection for these reasons (give a brief summary of each)
   - Deficient intakes of many vitamins & minerals are associated with impaired disease resistance, as are some excessive intakes.
   - Immune tissues are among the first to be impaired in the course of a nutrient deficiency or toxicity
   - Some deficiencies are more immediately harmful to immunity than others; the speed of the impact is affected by whether another nutrient can perform some of the metabolic tasks of the nutrient.
   - Once a person becomes malnourished, malnutrition often worsens disease, which, in turn, worsens malnutrition.

5. What does PEM stand for? _Protein - energy malnutrition_

6. Why is PEM significant to your body's defenses? _PEM has an effect on body's defense when PEM sets in, the linings, immune cells, and antibodies of the digestive tract diminish, leaving easy passage for infection_

7. What does the term *immunonutrition* describe? _Is used to describe the influence of nutrients on the functioning of the immune system, especially regarding medical nutrition therapies._

8. Can malnutrition result from diseases such as AIDS? _Yes_ Why or Why not? _They depress the appetite + speed up metabolism, causing a wasting away of the body's tissues similar to survival_

9. What are risk factors? _Suspected contributors to chronic diseases_

10. What diet choices increase the risk for hypertension? _Choosing to eat a diet too high in saturated fats, salt, and calories._

11. What is CVD _Cardiovascular disease - A disease of the heart + blood vessels_

12. What is the treacherous myth about heart disease? _Is that heart disease is a man's disease._

13. What is atherosclerosis? _At the root of most forms of CVD. It is the common form of hardening of the arteries_

14. How does atherosclerosis begin? _Atherosclerosis usually begins with the accumulation of soft, fatty streaks along the inner walls of the arteries_

15. What is plaque? _Build up of fats that become hardened + fibrous. especially at branch points._

16. Define the following terms under Plaques and Blood Clots
   Platelets - _normally cause clots to form when they encounter injuries in blood vessels_
   Embolus - _A clot that has broken loose_

   Embolism - _When an embolus becomes stuck in an artery_

17. What is the difference between a stroke and a heart attack? _A heart attack results from an embolism of the heart (sudden death if heart muscle.) A stroke occurs from an embolism of the brain (kills a portion of the brain tissue)_

18. What are three major risk factors for CVD? ① _Age_
② _Gender_
③ _Genetic inheritance_

LDL = Less Healthy

19. What is LDL? _Low-density lipoprotein cholesterol_ ⎫

20. What is HDL? _High-density lipoprotein cholesterol_ ⎬ Strongly linked to a person's risk for developing atherosclerosis & heart disease

Higher HDL is protective

HDL = Healthy

21. A blood lipid profile with low HDL (<40mg/dL) and high LDL (≥ 160mg/dL) _elevates_ the risk of heart disease.

22. What are the Twin Demons? _Hypertension & Atherosclerosis_

23. How do diabetes, physical inactivity, and smoking increase the risk for CVD? _In [diabetes] atherosclerosis progressively rapidly blocking blood vessels & diminishing circulation [Without physical] activity, muscles of the heart arteries weaken. Smoking damages the heart w/ toxins, increases hearts work load._

24. How much does changing the diet change LDL cholesterol? _Reducing fats in the diet lowers the blood LDL levels._

25. What is systolic pressure? _Ventricular contraction_

26. What is diastolic pressure? _(relaxation)_

27. What is ideal resting blood pressure? _lower than 120 over 80_

28. Where does prehypertension levels begin? _blood pressure values in the borderline range of 120 over 80 to 139 over 89_

29. How does nutrition affect hypertension _Diet & physical activity can bring improvements for many & prevent hypertension_

30. What is the DASH Diet _The results of the Dietary Approaches to Stop Hypertension Diets: Rich in Fruits, vegetables, whole grains, & low-fat milk products can significantly lower BP_

31. What does it provide more of _Fiber, potassium, magnesium, calcium, emphasizes legumes & fish over red meats, limited added sugars & sugar containing beverages._

32. For people who have hypertension a weight loss of _10 pounds_ can significantly lower blood pressure.

33. As mentioned, high intakes of salt and sodium are associated with _hypertension_.

34. What is cancer? _A disease which cells multiply out of control & disrupt normal functioning of one or more organisms_

35. How does cancer develop? _Cancers arise in the genes. It often begins when a cell's DNA sustains damage from a carcinogen Cell loses its ability to self-destruct & replicates out of control, resulting in abnormal tissue - a tumor_

36. Describe the 6 steps of cancer development.

1. _Exposure to a carcinogen_

2. _Entry of the carcinogen into the cell_

3. _Initiation of cancer as the carcinogen damages or changes the cell's genetic material_

4. _Acceleration by other carcinogens, called promoters, so that the cell begins to multiply out of control - tumor formation_

5. _Often spreading of cancer cells via blood & lymph (metastasis)_

6. _Disruption of normal body functions_