Lecture Outline Chapter 2: Nutrition Standards and Guidelines

I. (DRI) Dietary Reference Intakes (page A in front of book)

- *Definition:* Nutrient intake standards set for people living in the United States and Canada.
- The DRI is an umbrella term for four possible values that is set for each nutrient:
  - A. _____
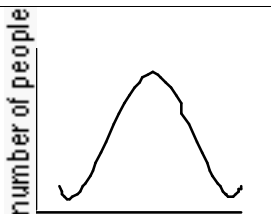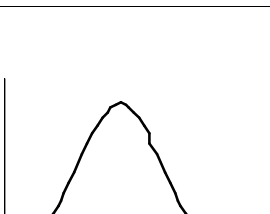 - B. _____
  - C. _____
  - D. _____

A. (RDA) Recommended Dietary Allowances
- *Definition:* A set of suggested nutrient goals for individuals.
- Recommendations vary based on _____ and _____. Do not take into consideration activity level, height, weight, etc.
- Meet the needs of nearly all (_____) people in a given age and gender group.
- Based on solid experimental evidence; set by a panel of_____.
- They are recommendations for _____ intake, NOT _____ requirements.
- Intended for _____ individuals, not for those with serious illness or malnutrition.
- 32-year-old female: IRON *RDA* _____ CALCIUM *RDA* _____

B. (AI) Adequate Intakes
- *Definition:* Also a set of suggested nutrient goals for individuals.
- Set when scientific data does not allow RDA to be set; involves educated _____ _____
- IRON *AI* 32-year-old female _____ CALCIUM *AI* _____

Setting RDA and AI Values

Nutrients- set so that they will meet the requirements of <u>nearly all</u> people.	Energy- set at the average so that <u>half</u> of the populations' needs will fall <u>below</u> and half will fall above the recommended level.
 number of people Daily Requirement NUTRIENT	 Daily Requirement ENERGY

Why are the RDA for **NUTRIENTS** (like protein, vitamins, and minerals) **NOT** set at the average requirement, but instead at a level **HIGHER** than the average?

Give 2 reasons why consuming less than the RDA for a nutrient for one day does not mean you're deficient in that nutrient. (This is not answered in the lecture, but if you are not sure of your answer feel free to discuss this in the forums).

C. (EAR) Estimated Average Requirements
- *Definition:* Average nutrient requirements for given genders and life stage groups.
- Used by researchers and nutrition policy makers.
- Form the basis upon which the _____ are set.

D. (UL) Upper Intake Levels
- *Definition:* A standard that identifies potentially hazardous levels of nutrient intake when exceeded.
- Not all nutrients have an UL due to _____.
- Important for people who take _____.
- IRON *UL* 32-year-old female _____ CALCIUM *UL* _____

II. My Pyramid (USDA Food Guide)
Definition- A visual representation and explanation of a daily *food* and *activity* guide.

How Can the Food Guide Pyramid Help me Eat Well?
The food guide pyramid is a visual representation of the USDA food guide. It is a food guide to help Americans achieve the goals of the Dietary Guidelines for Americans, as well as meeting the RDAs and AIs or (DRIs). For most people this means eating *MORE* of:
- o _____
- o _____
- o _____
- o _____

And eating *LESS* of:
- o _____
- o _____
- o _____

Foods grouped into 5 different groups, based on their nutrient content.

1. _____
2. _____
3. _____
4. _____
5. _____

If you look at the fruit and vegetable groups you'll notice they contribute Vitamin A, Vitamin C, potassium, and fiber to the diet. Vegetables also contribute _____ (a B vitamin) and _____ (a mineral) to the diet.

Portion Distortion:
- How many ounces is the ½ cup of granola?
- How many ounces is the cup of puffed rice?
- If you're trying to cut down your portion sizes, one way to do it is to use smaller plates. In the video that showed the research done by Brian Wainsink, study subjects on average took _____% more food when serving themselves on larger plates.

Controlling Calories: The Discretionary Calorie Allowance
- Discretionary Calories are the Calories you can spend on the extras after you've consumed your nutrient dense foods. Foods with added _____ or added _____ or more of any food from any of the food groups.

- *Examples of foods that contain Discretionary Calories:*

- *Examples of foods that are nutrient dense:*

Can you think of how discretionary calories might actually help you to eat nutrient dense foods?

III Daily Values (DV) (page Y in back of book)
- *Definition-* A set of suggested daily intakes of calories and selected nutrients, developed to use on <u>food labels</u>.
- They don't vary by age or gender; they are usually the highest RDA for that nutrient.
- Reflect the needs of an "average" person (someone eating 2,000 calories a day).
- Based on the _____ RDA; are not updated on a regular basis.

- Iron DV _____   Calcium DV _____
- A DV on a food label lists what _____ of the _____ a _____ of the food supplies.

   MAGIC DV- we are going to say that the "magic" % Daily Value is 10%. In other words, we will consider a food a **"good source"** of a nutrient if the label says a serving of it has 10% or greater of the DV for that nutrient.
   Using **this definition** and looking at the spinach label in **Lecture 2A**, what nutrients should we consider the spinach a **"good source"** of? _____

IV   Dietary Guidelines for Americans, 2005 (Ch. 2, pg. 36 of text)

- Adequate nutrients within energy needs - Weight management - Physical activity - Food groups to encourage	- Fats - Carbohydrates - Sodium & potassium - Alcoholic beverages - Food safety

V   Beyond the nutrients of the twentieth century
   A **Phytochemicals**
   Definition- chemicals that plants make to help them **_survive_** and get ready to **_reproduce._**   Phytochemicals help them do that by helping:
   - protect the plants from the environment (sun's heat, oxygen etc.). Antioxidants are one type of phytochemical that can do this.
   - protect the plants from diseases, infections and pests
   - attract pollinators and seed-dispersing animals

   It is estimated that there may be more than _____different phytochemicals in just one serving of vegetables.

   B **Zoochemicals**- the same thing in _____

   C **Neutraceuticals**- (term first used in 1989)- a term that motivates companies to divide food into individual chemicals that may have medical or health benefits, including the prevention and treatment of disease. These neutraceuticals are then sold at a much greater profit than what a farmer makes when selling a whole food.

   Example: _____

   D Best way to get phytochemicals- _____