

embracing your health

Nutrition 101 – Class 6

Angel Woolever, RD, CD



Computer Difficulties

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Questions

- You may raise your hand and type your question
- All questions will be answered at the end of the webinar to save time

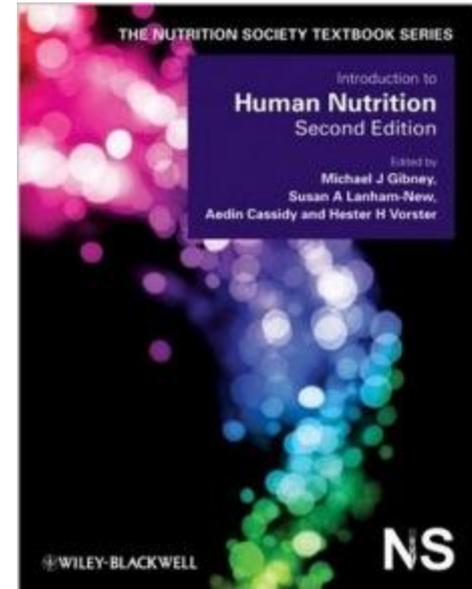


Nutrition 101

❖ Introduction to Human Nutrition” second edition

Edited by Michael J. Gibney, Susan A. Lanham-New, Aedin Cassidy, and Hester H. Vorster

May be purchased online
but is not required for
the class.



Dietary Reference Standards



bradley j/flickr

Recommended Daily Allowances (RDAs)

- 1941, Food and Nutrition Board of the National Research Council of the USA
- 1943, RDAs were published
- “to provide standards to serve as a goal for good nutrition”



Dietary Reference Intakes (DRIs)

- 1997, Published by the Institute of Medicine
- Terminology changed to re-emphasize some of the basic concepts underlying the term RDA
- “Recommended”
 - Prescriptive air
 - Concerns that consumers might see this as something that had to be met daily and met precisely
- “Allowance”
 - Reinforces the perception of a prescriptive approach

DRI

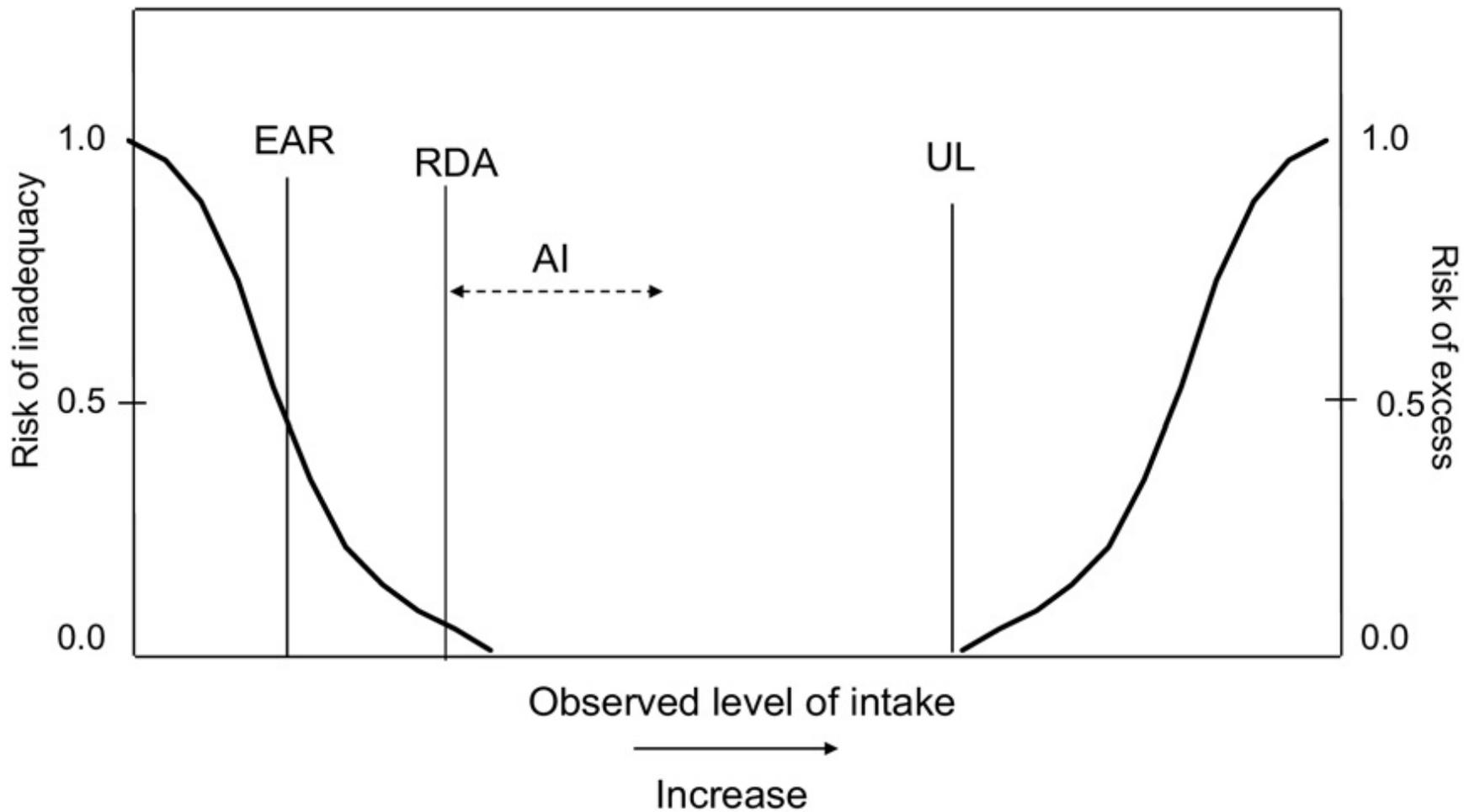
- Set of nutrient reference standards
- Considers the distribution of nutrient requirements as well as the possibility of excess



DRIs

- Estimated Average Requirement (EAR)
- Recommended Daily Allowance (RDA)
- Adequate Intake (AI)
- Tolerable Upper Intake Level (UL)
- Estimated Energy Requirement (EER)
- Acceptable Macronutrient Distribution Range (AMDR)

DRIs



Estimated Average Requirement (EAR)

- Average daily nutrient intake that is estimated to meet the requirement of half the healthy individuals in a particular life stage and gender group
- Requirement is based on intake needed for a desirable level of function rather than the amount needed to prevent deficiency disease



Recommended Dietary Allowance (RDA)

- Average daily dietary nutrient intake that is sufficient to meet the nutrient requirements of nearly all healthy individuals in a particular life stage and gender group
- Goal for intake by individuals



Adequate Intake (AI)

- Recommended average daily intake level based on observed or experimentally determined approximations or estimates of nutrient intake by a group of apparently healthy people that are assumed to be adequate
- Used when an RDA cannot be determined



Tolerable Upper Intake Level (UL)

- Highest average daily nutrient intake level that is likely to pose no risk of adverse health effects to almost all individuals in the general population
- Does not apply to individuals being treated for nutrient deficiency



Estimated Energy Requirement (EER)

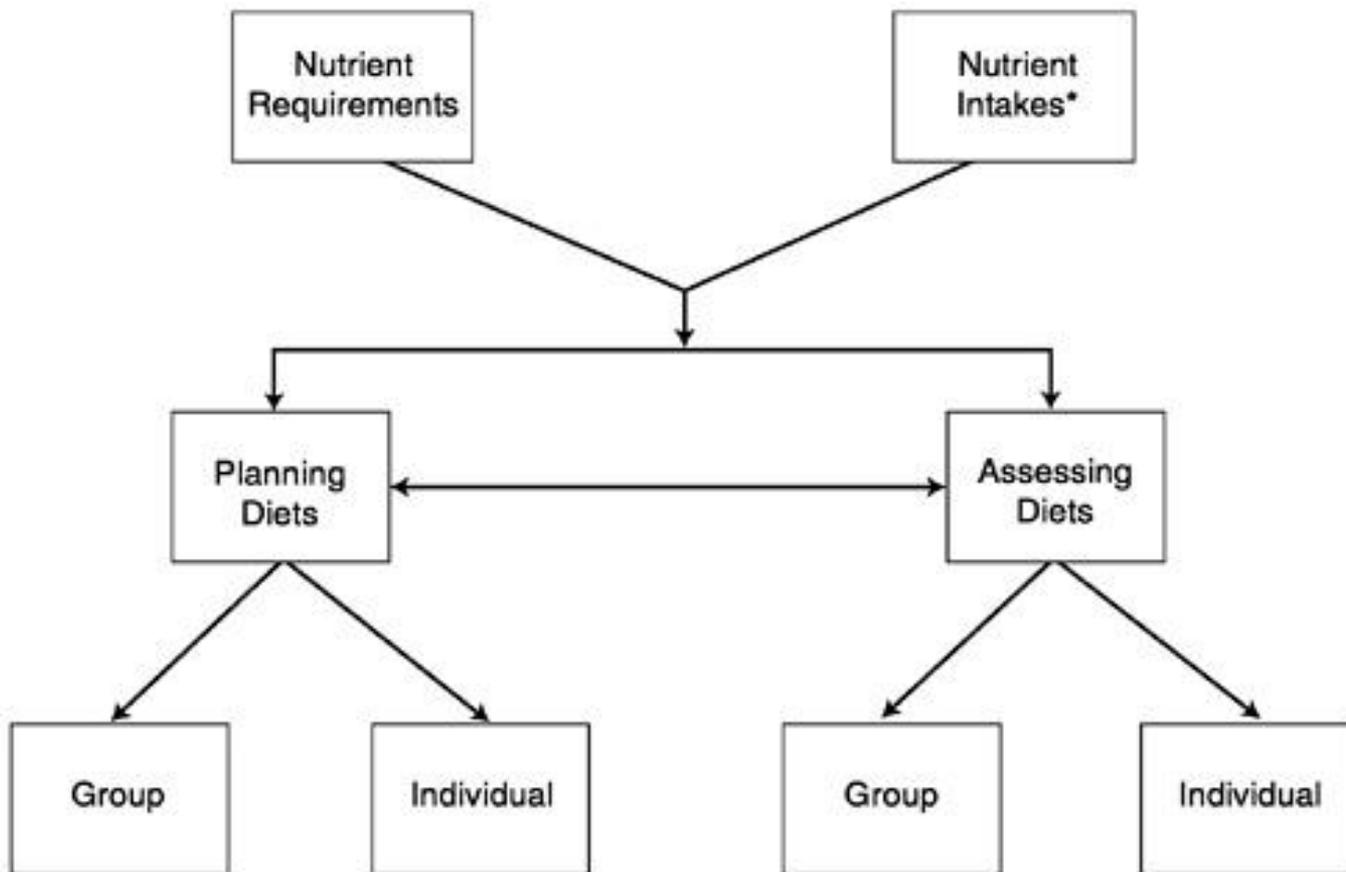
- Average dietary energy intake that is predicted to maintain energy balance in healthy adults of defined age, gender, weight, height, and level of physical activity consistent with good health
- May need to monitor weight to assess adequacy of energy intake

Acceptable Macronutrient Distribution Range (AMDR)

- Represents a range of intakes for a particular energy source that is associated with reduced risk of chronic disease while providing adequate intakes of essential nutrients
- Expressed as a percentage of total energy intake, were established for carbohydrate, protein, total fat, n-3 and n-6 fatty acids



Using DRIs



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What to look for on a food label???



Food Label Close-Up

Nutrition Facts	
1	Serving Size 1 cup (228g) Servings Per Container 2
Amount Per Serving	
2	Calories 250 Calories from Fat 110
% Daily Value*	
3	Total Fat 12g 18%
	Saturated Fat 3g 15%
	Trans Fat 1.5g
	Cholesterol 30mg 10%
4	Sodium 470mg 20%
5	Total Carbohydrate 31g 10%
6	Dietary Fiber 0g 0%
	Sugars 5g
7	Protein 5g
	Vitamin A 4%
	Vitamin C 2%
	Calcium 20%
	Iron 4%
8	* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:
	Calories: 2,000 2,500
	Total Fat Less than 65g 80g
	Sat Fat Less than 20g 25g
	Cholesterol Less than 300mg 300mg
	Sodium Less than 2,400mg 2,400mg
	Total Carbohydrate 300g 375g
	Dietary Fiber 25g 30g

Nutrition Facts Label

1- Look at the serving size and servings per container

2- Check out the total calories and fat calories

Nutrition Facts			
Serving Size 1 cup (228g)			
Servings Per Container 2			
Amount Per Serving			
Calories 250	Calories from Fat 110		
% Daily Value*			
Total Fat 12g	18%		
Saturated Fat 3g	15%		
Trans Fat 1.5g			
Cholesterol 30mg	10%		
Sodium 470mg	20%		
Total Carbohydrate 31g	10%		
Dietary Fiber 0g	0%		
Sugars 5g			
Protein 5g			
Vitamin A	4%		
Vitamin C	2%		
Calcium	20%		
Iron	4%		
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Nutrition Facts Label

Nutrition Facts			
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	Calories:	2,000	2,500
	Total Fat	Less than 65g	80g
	Sat Fat	Less than 20g	25g
	Cholesterol	Less than 300mg	300mg
	Sodium	Less than 2,400mg	2,400mg
	Total Carbohydrate	300g	375g
	Dietary Fiber	25g	30g

- 3-Total fat and breakdown includes saturated fat and trans fat. Also listed is total cholesterol.
- 4-Sodium content
- 5-Total carbohydrate (don't let this confuse you.)

Nutrition Facts Label

6-Dietary fiber and sugar content (note these are included in the total carbohydrate number.)

Nutrition Facts			
Serving Size 1 cup (228g)			
Servings Per Container 2			
<hr/>			
Amount Per Serving			
Calories 250		Calories from Fat 110	
<hr/>			
% Daily Value*			
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Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Nutrition Facts Label

7-Grams of protein per serving (note 7g of protein=1oz meat).

The blue shaded area lists the Daily Value percentages of Vitamin A, Vitamin C, Calcium and Iron.

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Serving Size 1 cup (228g)			
Servings Per Container 2			
Amount Per Serving			
Calories	250	Calories from Fat	110
		% Daily Value*	
Total Fat	12g		18%
Saturated Fat	3g		15%
Trans Fat	1.5g		
Cholesterol	30mg		10%
Sodium	470mg		20%
Total Carbohydrate	31g		10%
Dietary Fiber	0g		0%
Sugars	5g		
Protein	5g		
Vitamin A			4%
Vitamin C			2%
Calcium			20%
Iron			4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

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	Sodium	Less than 2,400mg	2,400mg
	Total Carbohydrate	300g	375g
	Dietary Fiber	25g	30g

8-This last section includes the total fat, saturated fat, trans fat, cholesterol, sodium, total carbohydrate, and fiber recommendations based on 2000 and 2500 calorie diets.

Nutrition Claims

Low Calorie

 40 calories or less

Fat Free

 Less than ½ g fat

Low Fat

 3 g or less

Cholesterol Free

 Less than 2 mg cholesterol and 2 g or less saturated fat



Nutrition Claims

Low Cholesterol

20 mg cholesterol or less and 2 g or less saturated fat

Sodium Free

Less than 5 mg sodium

Low Sodium

140 mg or less sodium

High Fiber

5 g or more fiber



THE BASIC STAMP



THE 100% STAMP

Comparing Ingredient Lists

Plain Yogurt – contains no added sugar

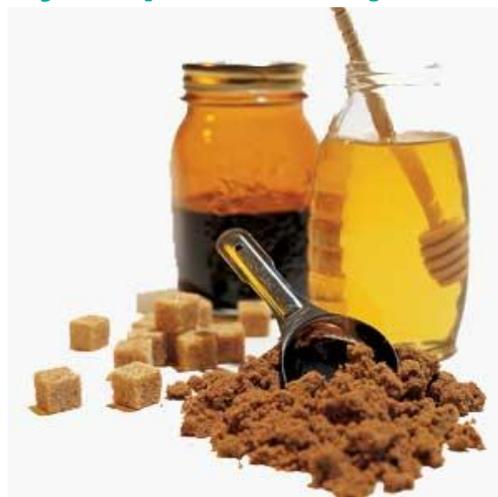
-  Ingredients: cultured pasteurized grade A nonfat milk, whey protein concentrate, pectin, carrageenan.

Fruit Yogurt – contains added sugar

-  Ingredients: cultured grade A reduced fat milk, apples, high fructose corn syrup, cinnamon, nutmeg, natural flavors, and pectin. Contains active yogurt and *L. acidophilus* cultures.

Comparing Ingredient Lists

- ❏ If you are concerned about your intake of sugars, make sure that added sugars are not listed as one of the first ingredients.
- ❏ Other names for added sugars include: corn syrup, high-fructose corn syrup, fruit juice concentrate.



Questions, Comments





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