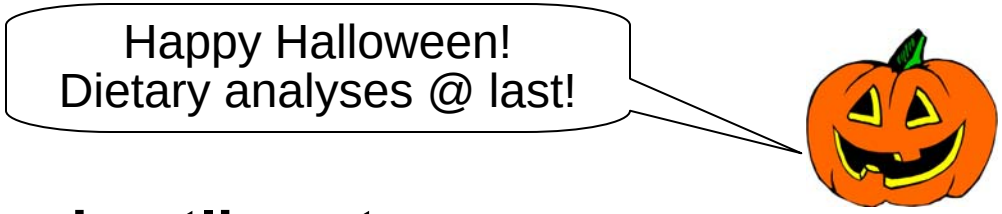
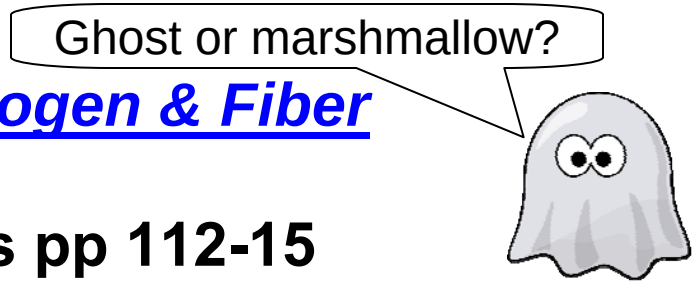
BI 199 Discussion 5



I. *Announcements* Send outlines to *lombardi@uoregon.edu* Q?
Dietary Analyses questions will be sent to you by e-mail.

II. *Nutrition in the News* Eat Real America! NAHL

III. *Can a Halloween Treat Be Healthy?*



IV. *Carbohydrates: Sugar, Starch, Glycogen & Fiber*
S&W 2014 pp 111-33

- **A. Carbohydrates & photosynthesis pp 112-15**
- **B. Importance of glucose & carbohydrates pp 115-17**
- **C. If I want to lose weight & stay healthy should I avoid carbohydrates? p 117**
- **D. Recommendations for carbohydrate intake p 118**
- **E. Fibers, soluble *vs.* insoluble & health effects pp 119-29**
- **F. From carbohydrates to glucose pp 129-30**
- **G. *Consumers' Guide* Finding whole grain foods pp 127-8**
- **H. Lactose intolerance? pp 130, 132-3**

III. *Dietary Analyses* Review of Diet Analysis Plus (DA+) & SuperTracker, then meet in Science Library B90 CD

Alice Waters, p. 8 | How food marketers snag us, p. 10 | 10 foods to try, p. 13

Nutrition Action HEALTH LETTER®
OCTOBER 2011 $2.50
CENTER FOR SCIENCE IN THE PUBLIC INTEREST

Eat Real, America!

"With the right food choices, physical activity, and not smoking, we could prevent about 80 percent of heart disease, about 90 percent of diabetes, and 70 percent of stroke," says Walter Willett, chair of the nutrition department at the Harvard School of Public Health in Boston. "Those are the three pillars. They really do make a difference."

The right food choices are simple: Eat less red meat, sweets, refined grains, and salt, and drink fewer sugary beverages. Replace unhealthy foods with vegetables, fruit, beans, and whole grains, and with smaller amounts of fish, poultry, and low-fat dairy. Those foods aren't just good for our health. They can also help protect the Earth.

Here's why—and how—to eat real.

Continued on page 3.

FOOD DAY
OCTOBER 24, 2011
JOIN US AT FOODDAY.ORG

40
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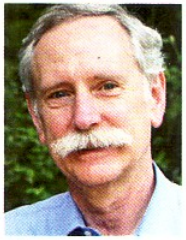
FOOD DAY 2011

EAT LIKE IT MATTERS

How diet can prevent disease



Walter Willett *is chair of the Department of Nutrition at the Harvard School of Public Health and professor of medicine at the Harvard Medical School. He has published over 1,400 scientific articles on diet and disease. Willett spoke to* Nutrition Action's *Bonnie Liebman from Boston.*

Q: *Can food keep us healthy?*

A: The foods we choose have a huge impact on our long-term health and well-being. We've learned that in the last few decades.

We've seen that, say, rates of heart disease in northern Europe are ten times higher than in southern Europe and that rates of cancer vary tenfold or more around the world. The foods we choose—along with physical activity and not smoking—are a major factor in those huge differences in rates of almost every disease that we look at, including heart disease, stroke, diabetes, and many cancers.

Q: *What are the right foods?*

Q: *And low in salt?*

A: Keeping salt on the low side is definitely important for preventing heart attacks and strokes, but that tends to happen automatically if you eat fruits, vegetables, and whole grains that have been minimally processed.

You still need to pay attention because you can find whole grains even at places like Whole Foods that are extremely high in salt even though they are marketed as healthy. If you go the processed, prepackaged route, you run the risk of a high salt intake. But if you prepare your own intact foods, most of the time your salt intake will be low.

Q: *How does red meat affect diabetes?*

A: We're not sure. There may be multiple factors in meat. Some evidence suggests that the heme iron increases risk. The link with diabetes hasn't been appreciated until recently, but now it's been seen in many studies.

Q: *Does meat promote colon cancer?*

A: Yes, particularly if it's processed red meat. So much happens in the processing that we're not sure what matters, but the evidence is quite strong.

Breast cancer does not seem to be related to red meat consumption during midlife and later, but we have seen a relationship

Can Halloween Treats Be Healthy?

Choose an item w/@ least some redeeming value – nuts? raisins? popcorn? fruits?...

Where's the line?
Are choices possible?
Volume/calorie control?

??

A degree of nutrient density?

Entirely empty calories?

http://www.clemson.edu/extension/hgic/food/nutrition/nutrition/life_stages/hgic4112.html

Raisinets, 1 standard package

Nutrient	Your Intake	Recommendation or Acceptable Range
Food Energy/Total Calories (kcals)	111	2331
Protein (gm)	1	56
Carbohydrate (gm)	19	130
Total Fiber (gm)	1	30
Total Fat (gm)	4.2	2.5 - 4.3
Saturated Fat (gm)	2.5	< 1.2
Monounsaturated Fat (gm)	1	**
Polyunsaturated Fat (gm)	0	**
Linoleic (omega 6) (gm)	0.1	14
Alpha Linolenic (omega 3) (gm)	0	1.6
Cholesterol (mg)	1	< 300
Vitamin A (mcg RAE)	6.8	900
Vitamin C (mg)	0.1	90
Vitamin E (mg a-TE)	0.3	15
Thiamin (mg)	0	1.2
Riboflavin (mg)	0	1.3

Raisinets, 1 standard package

Niacin (mg)	0.1	16
Folate (mcg, DFE)	2	400
Vitamin B6 (mg)	0	1.7
Vitamin B12 (mcg)	0.1	2.4
Calcium (mg)	24.4	1200
Phosphorus (mg)	40.5	700
Magnesium (mg)	12.8	420
Iron (mg)	0.5	8
Zinc (mg)	0.2	11
Selenium (mcg)	0.7	55
Potassium (mg)	146	4700
Sodium (mg)	10	1300 - 2300

Reese's Peanut Butter Cup, 1 standard cup

Nutrient	Your Intake	Recommendation or Acceptable Range
Food Energy/Total Calories (kcals)	88	2331
Protein (gm)	2	56
Carbohydrate (gm)	9	130
Total Fiber (gm)	1	30
Total Fat (gm)	5.2	1.9 - 3.4
Saturated Fat (gm)	1.8	< 1
Monounsaturated Fat (gm)	2	**
Polyunsaturated Fat (gm)	1	**
Linoleic (omega 6) (gm)	0.9	14
Alpha Linolenic (omega 3) (gm)	0	1.6
Cholesterol (mg)	1	< 300
Vitamin A (mcg RAE)	2.9	900
Vitamin C (mg)	0.1	90
Vitamin E (mg a-TE)	0	15
Thiamin (mg)	0	1.2
Riboflavin (mg)	0	1.3

Reese's Peanut Butter Cup, 1 standard cup

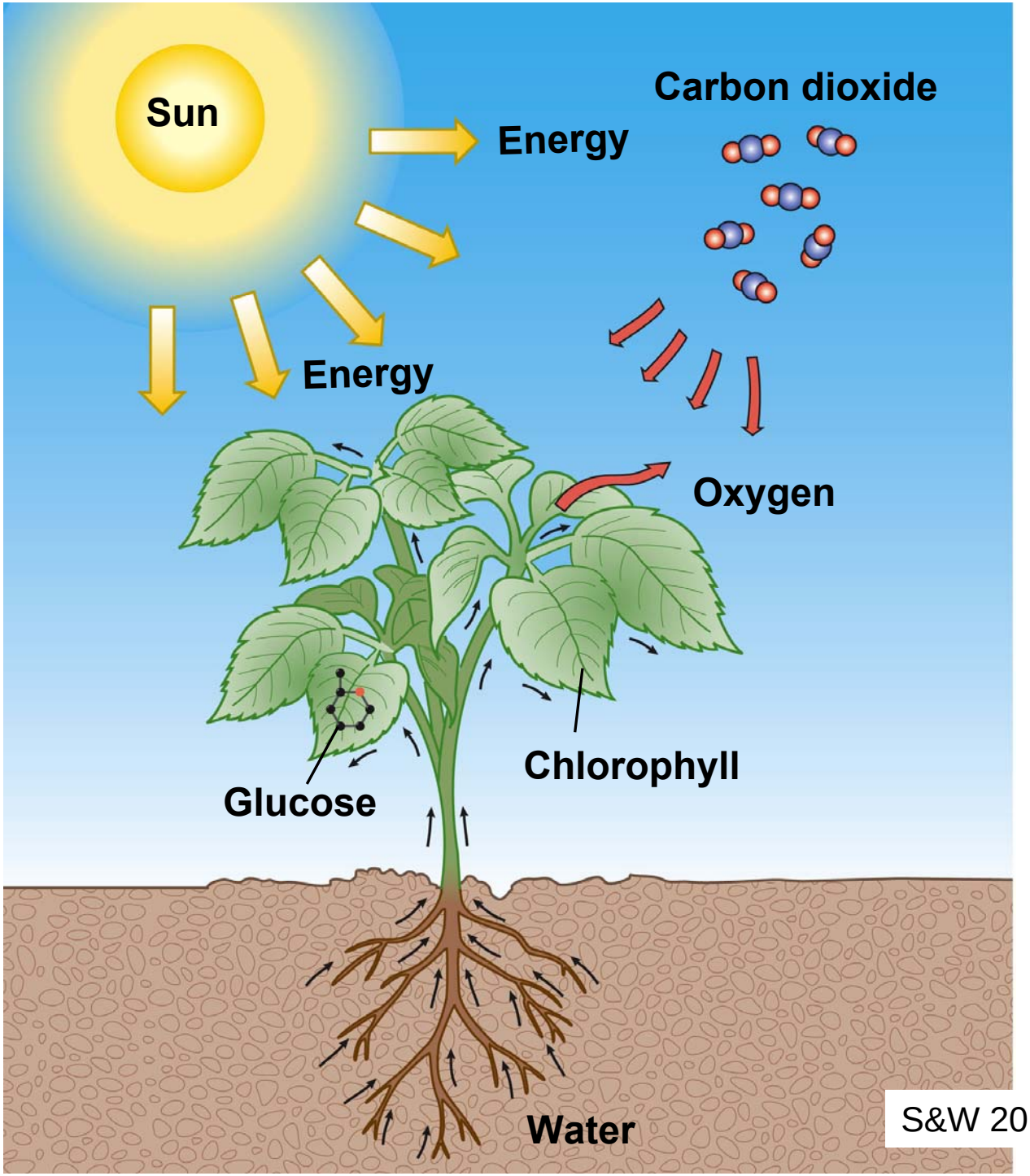
Niacin (mg)	0.8	16
Folate (mcg, DFE)	8.5	400
Vitamin B6 (mg)	0	1.7
Vitamin B12 (mcg)	0.1	2.4
Calcium (mg)	13.3	1200
Phosphorus (mg)	27.4	700
Magnesium (mg)	10.5	420
Iron (mg)	0.2	8
Zinc (mg)	0.2	11
Selenium (mcg)	0.2	55
Potassium (mg)	58	4700
Sodium (mg)	53	1300 - 2300

Candy Corn, 12 pieces

Nutrient	Your Intake	Recommendation or Acceptable Range
Food Energy/Total Calories (kcals)	494	2331
Protein (gm)	0	56
Carbohydrate (gm)	123	130
Total Fiber (gm)	0	30
Total Fat (gm)	0	11 - 19.2
Saturated Fat (gm)	0	< 5.5
Monounsaturated Fat (gm)	0	**
Polyunsaturated Fat (gm)	0	**
Linoleic (omega 6) (gm)	0	14
Alpha Linolenic (omega 3) (gm)	0	1.6
Cholesterol (mg)	0	< 300
Vitamin A (mcg RAE)	0	900
Vitamin C (mg)	0	90
Vitamin E (mg a-TE)	0	15
Thiamin (mg)	0	1.2
Riboflavin (mg)	0	1.3

Candy Corn, 12 pieces

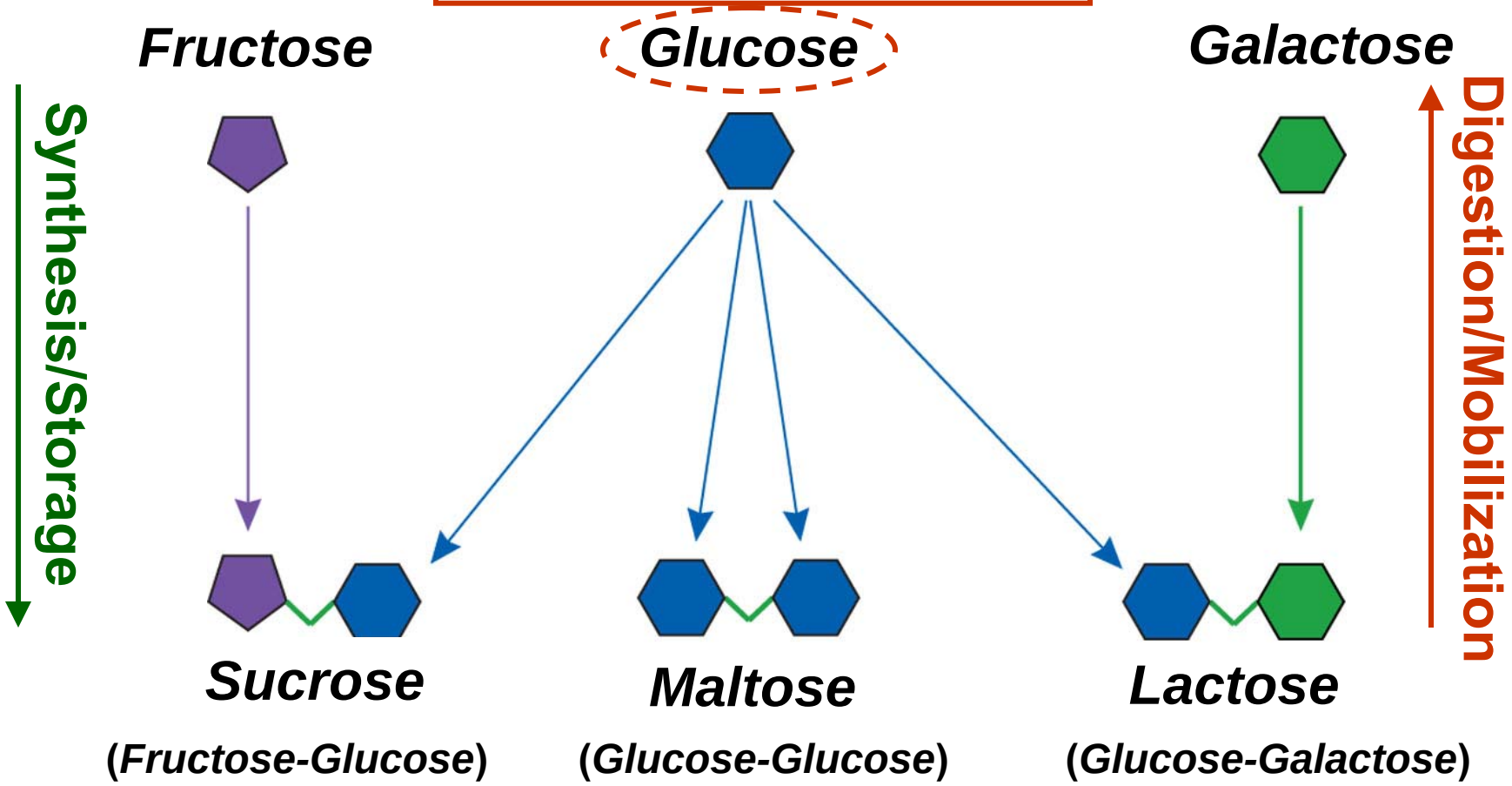
Niacin (mg)	0	16
Folate (mcg, DFE)	0	400
Vitamin B6 (mg)	0	1.7
Vitamin B12 (mcg)	0	2.4
Calcium (mg)	2.6	1200
Phosphorus (mg)	0	700
Magnesium (mg)	0	420
Iron (mg)	0	8
Zinc (mg)	0	11
Selenium (mcg)	0.8	55
Potassium (mg)	5	4700
Sodium (mg)	21	1300 - 2300



S&W 2014 fig 4-1 p 113

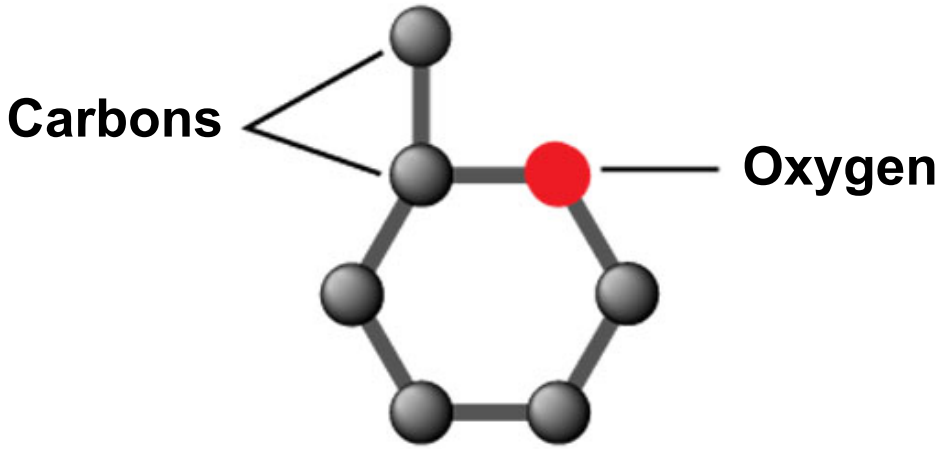
Monosaccharides (Monomers) & Disaccharides (Dimers)

~80% of end-products of carbohydrate digestion

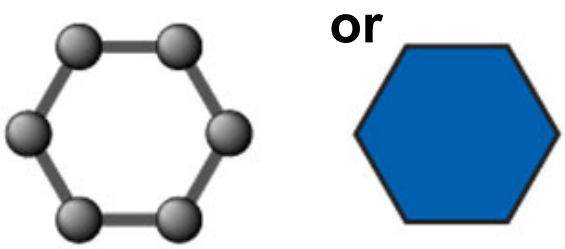


S&W 2014 fig 4-2 p 114

A glucose molecule is really a ring of 5 Carbons & 1 Oxygen plus a carbon "flag" (so 6 Carbons total!). Also, includes Hydrogens...

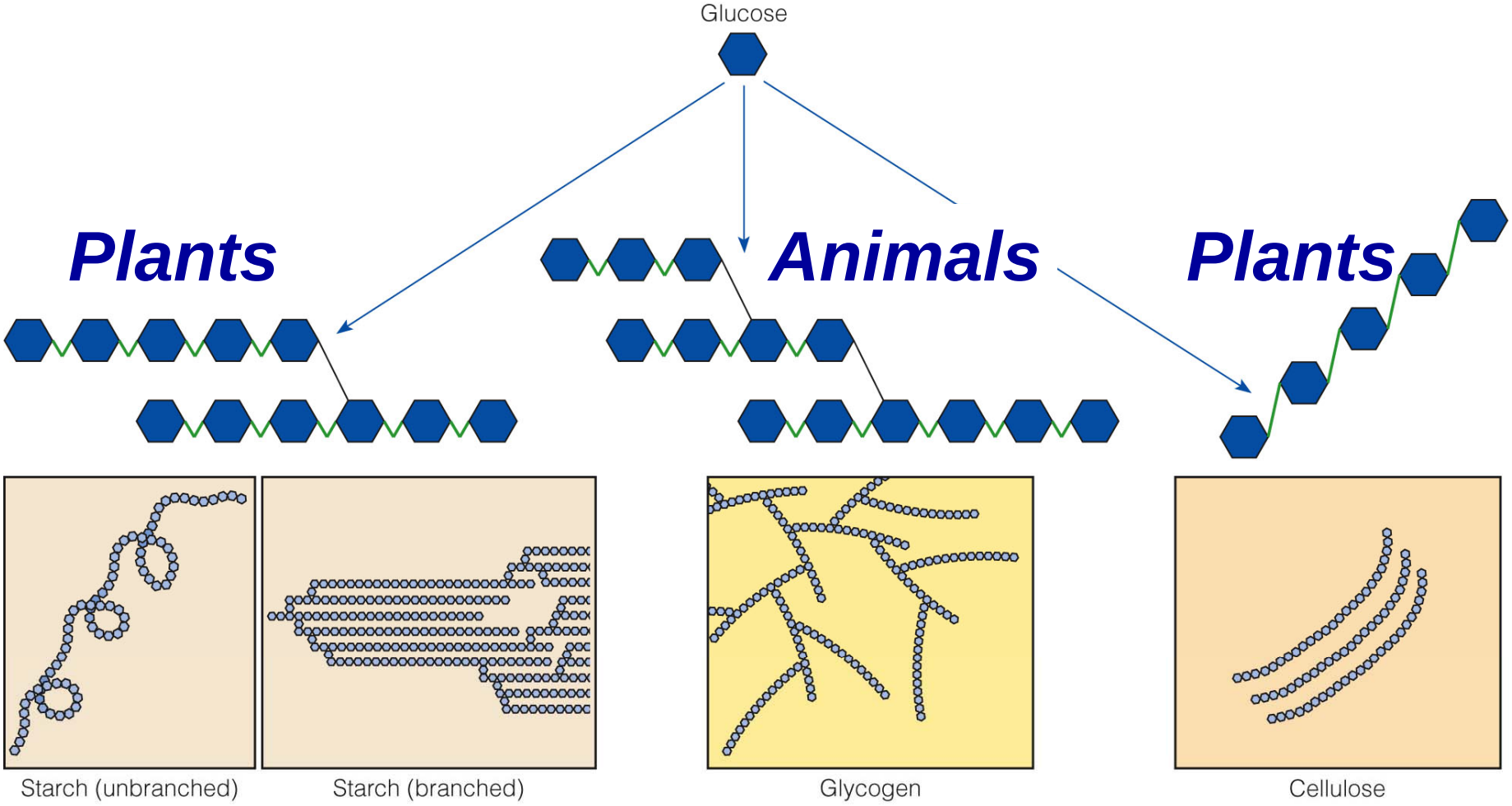


For convenience, glucose is symbolized as



S&W 2014 fig 4-2 p 114

Glucose Polymers for Storage?



Starch Glucose units are linked in long, occasionally branched chains to make starch. Human digestive enzymes can digest these bonds, retrieving glucose. Real glucose units are so tiny that you can't see them, even with the highest-power light microscope.

Glycogen Glycogen resembles starch in that the bonds between its glucose units can be broken by human enzymes, but the chains of glycogen are more highly branched.

Cellulose (fiber) The bonds that link glucose units together in cellulose are different from the bonds in starch or glycogen. Human enzymes cannot digest them.

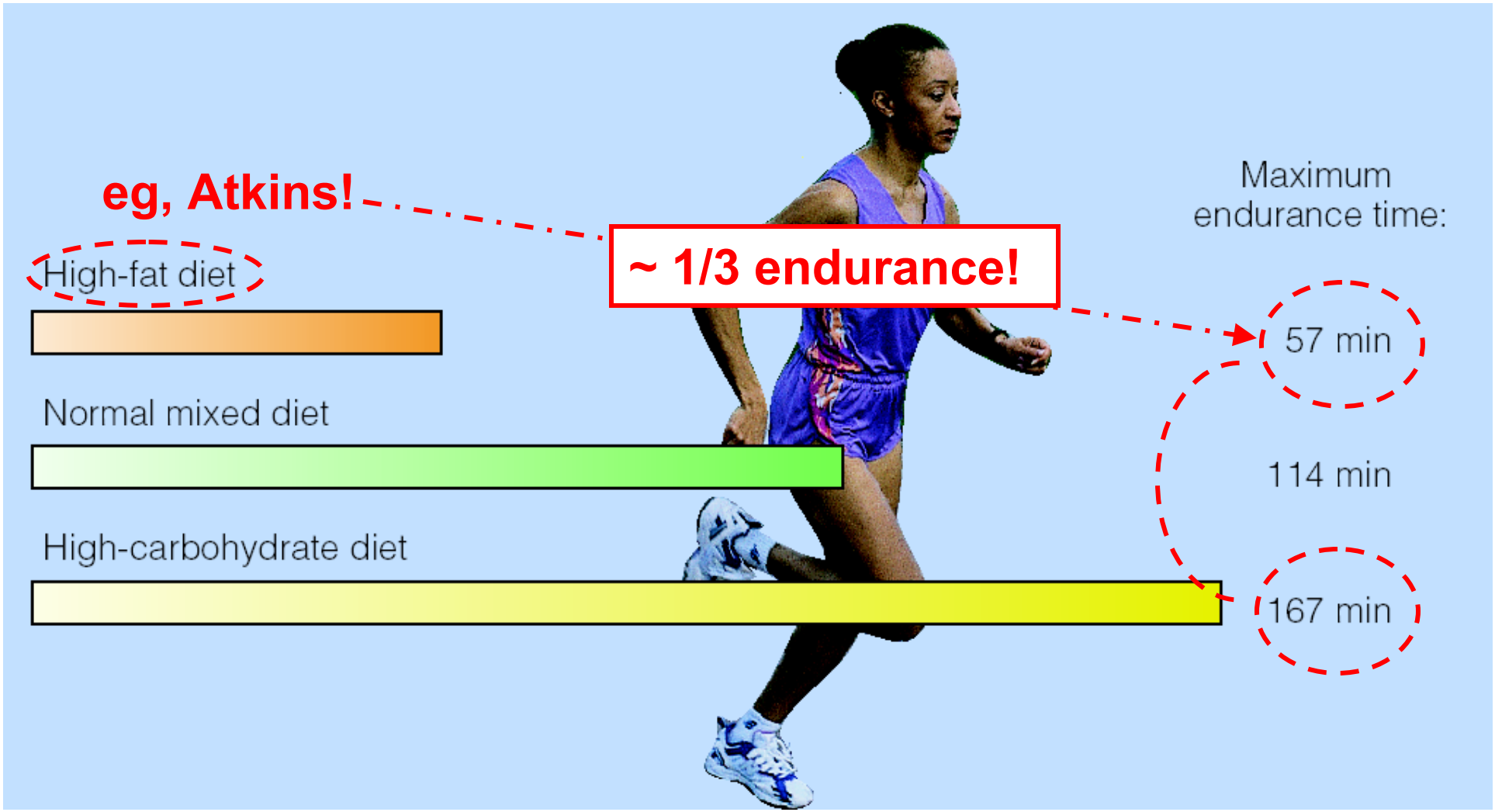
S&W 2014 fig 4-3 p 116

Carbohydrate Intake Recommendations

1. **45-65% of total calories, so for 2000 kcal diet ~½ or 1000 kcal, for 2500 kcal, 1250 kcal from carbohydrates.**
2. **Absolute minimum of 130 g/d (DRI) for CNS (+rbcs)!**
3. **Choose & prepare foods & beverages with little added sugars. Insufficient evidence exists to set UL, but DRI says a high maximum of 25% or less of total kcal.**
4. **Added sugars may provide discretionary calories after all nutrient recommendations are met! (USDA)**
5. **Not more than ½ of discretionary calories should come from sugars. For women ≤ 100 kcal, for men ≤ 150 kcal.**
6. **Increase intakes of whole fruits & vegetables & make ≥ ½ grain choices whole grain. Legumes several times/wk.**
7. **≤ 50 yr, women 25 g fiber/d, men 38 g fiber/d.**

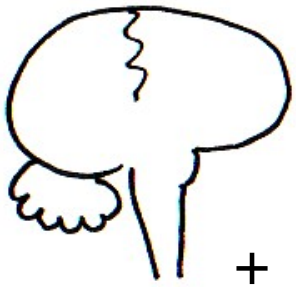
S&W 2014 tab 4-1 p 118

Dietary Composition & Physical Endurance



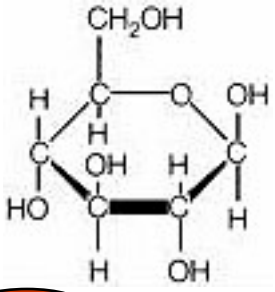
cns

2



+

glucose



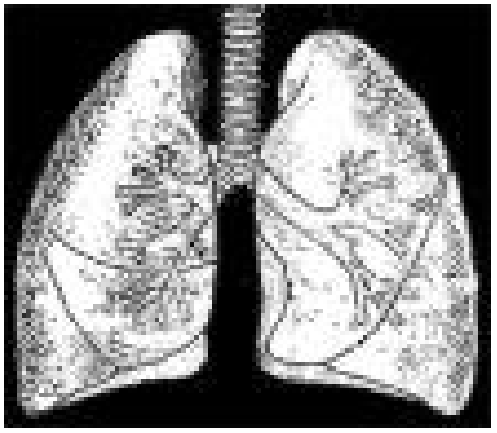
rbcs

3

Negative Effects of Low Carbohydrate

1

4



1 ↑ fatigue/exhaustion central & peripheral!

2 ↓ glucose – brain+spinal cord, rbcs thrive upon.

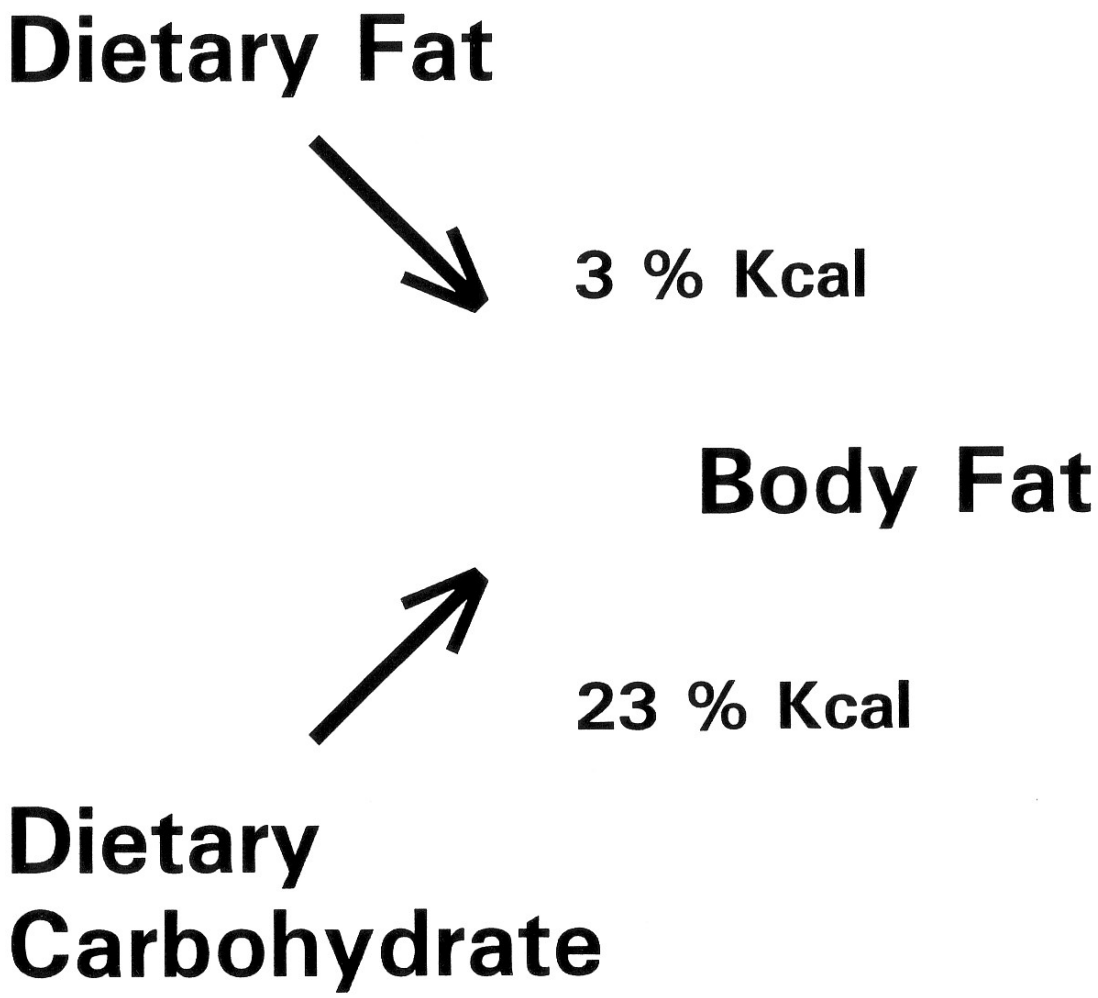
3 ↓ variety which reduces intake of phytochemicals, vitamins, minerals & fiber.

4 ↑ risk of respiratory infections.

+ gall stones,

↓ thermoregulation...

We're better at storing fat vs carbohydrate!




FLAVOR AROMA
SATIETY
LIPID
MEMBRANE
MAINTENANCE
LIPID
INSULATION
PADDING
LIPID
CARRIERS
FAT SOLUBLE
VITAMIN

To Help Lower Body Wt & %Fat
EXERCISE!! +*Minimize* These!!

FAT	**9 Kcal/g**
ETOH	**7 Kcal/g**
CARB	**4 Kcal/g**
PRO	**4 Kcal/g**

NB: *Minimize* not *Eliminate*!
Moderation* not *Abstinence!!

I'm not sure I believe you! Why can't I just starve to lose weight?

TOTAL FAST =
No Energy Nutrients
(No Carbohydrates, Fats or Proteins)

ONLY

1. Water
2. Vitamins
3. Minerals

ML Pollock & JH Wilmore 1990.

60-day Fast???

Lost 60 lb!! Wow!!

Yet

76.7% { **26 lb Water**
20 lb Lean Body Mass

14 lb Fat

Fat < ¼ total wt loss!

You can lose weight by starving – but it's mostly water & muscle! Also, there can be complications!

Potential Complications of Total Fasting

Nausea, diarrhea, persistent vomiting, postural hypotension, nutritional deficiencies, menstrual irregularities, and…sudden death.

Positive Aspect??

General loss of appetite within first 2 days, maintained throughout fasting period.

ML Pollock & JH Wilmore 1990.

Council on Nutrition, Physical Activity and Metabolism (NPAM) Spring 2009

American Heart Association
Learn and Live®

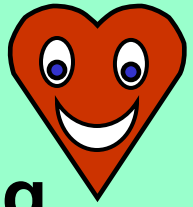
Dietary Carbohydrate, Fat and Protein in Weight-Loss Diets: A Report and Insider's Reflections on the Pounds Lost Trial

Frank M. Sacks, MD

Well-controlled studies of energy-reduced diets conducted in controlled environments showed that the macronutrient composition of the diet did not affect weight loss (1). Nonetheless, theories persisted that specific macronutrients would be superior for weight loss. For example, the traditional paradigm for low-fat, high-carbohydrate diets was based on the lower energy density of carbohydrate compared to fat, and the metabolic efficiency of converting dietary fat to body fat (2). Indeed strict vegetarians sustain lower body weight for years on low-fat diets (3). However, meaningful differences in body weight usually were not achieved in population-based trials of conventional low-fat diets (4). Thus, higher-fat, Mediterranean-style diets were proposed to be better for long-term weight loss because of their variety and satisfaction. Two trials found that Mediterranean diets were superior to low-fat diets for weight loss (5,6). Others claimed that a radically different approach that used low-carbohydrate, high-fat, and high-protein foods could produce weight loss without attention to reducing intake because of the satiety of protein-rich foods. Low-carbohydrate diets succeeded in the first few months with more rapid weight loss than low-fat diets but by one year, none of the trials found that weight loss on low-carbohydrate

Continued on page 26

Dr. Sacks' Conclusions:



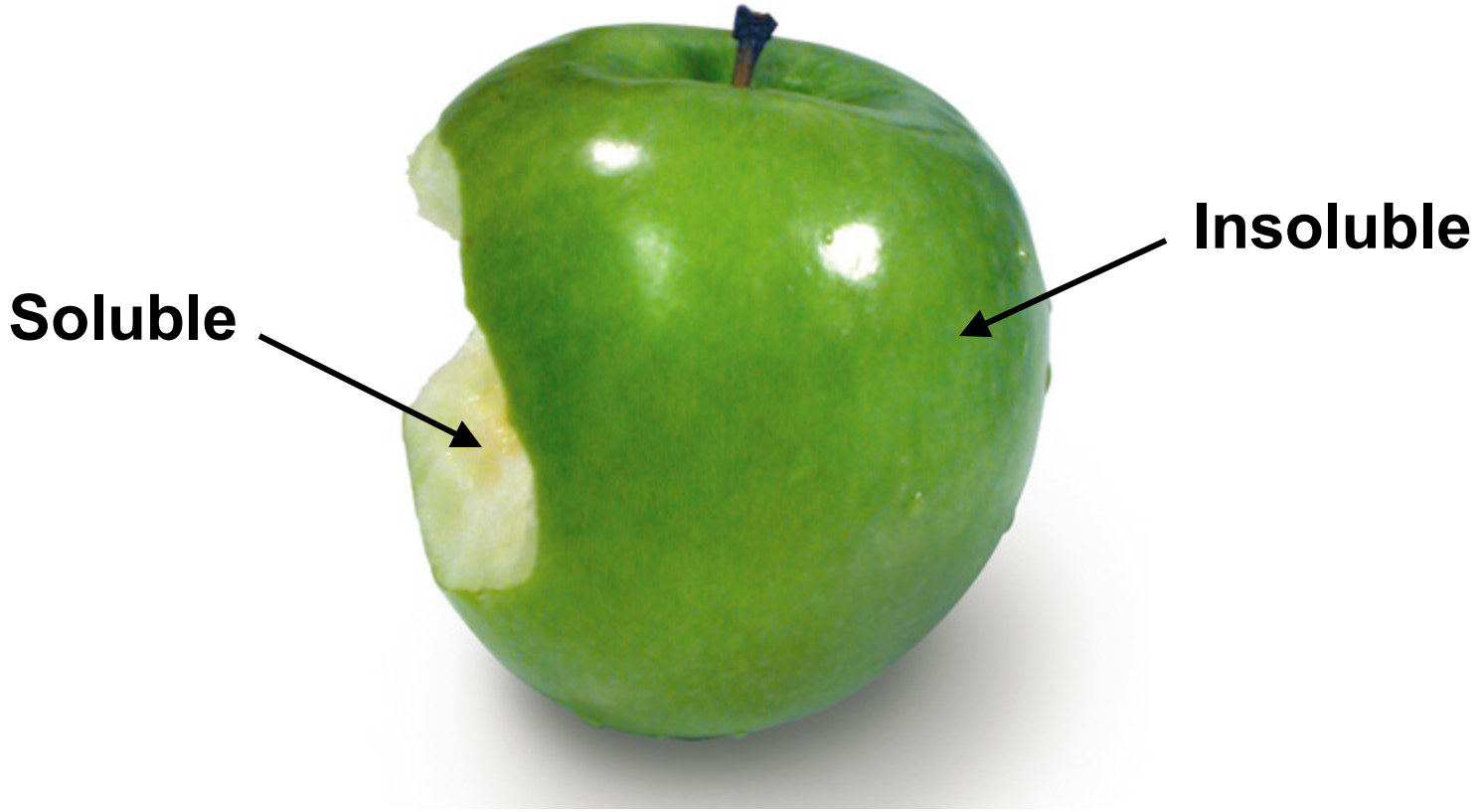
We conclude that healthful diets with varying emphases on carbohydrate, fat & protein levels can all achieve clinically meaningful weight loss & maintenance of weight loss over a 2-yr period. The results give people who need to lose weight the flexibility to choose a diet that they can stick with, as long as it's heart healthy. Such diets can also be tailored for individuals based on their personal & cultural preferences & in this regard may have the best chance for long-term success.

US Dietary Recommended Intakes (DRI) Committee Acceptable Macronutrient Distribution Ranges (AMDR)!

Energy Nutrient	*% Total Calories*
Carbohydrate	**45-65%**
Fat	**20-35%**
Protein	**10-35%**

Emphasize ABCs + Variety & Moderation!

Soluble vs. Insoluble Fiber



Why fiber?

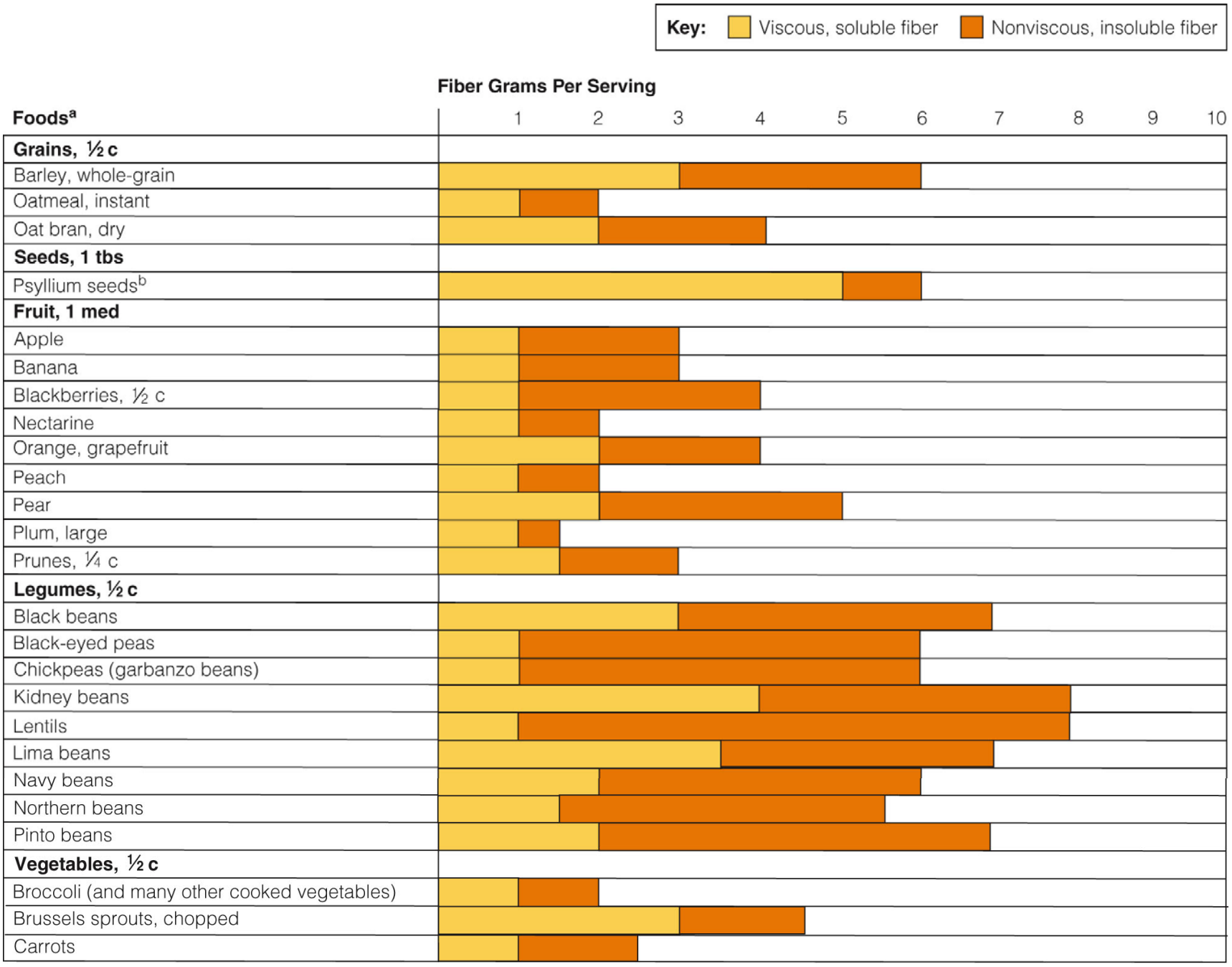
People who eat these foods . . .		obtain these types of fibers . . .	with these actions in the body . . .	and these probable health benefits . . .
		Viscous, soluble, more fermentable		
 Stockbyte/Getty Images	• Barley, oats, oat bran, rye, fruits (apples, citrus), legumes (especially young green peas and black-eyed peas), seaweeds, seeds and husks, many vegetables, fibers used as food additives	• Gums • Pectins • Psyllium[a] • Some hemicellulose	• Lower blood cholesterol by binding bile • Slow glucose absorption • Slow transit of food through upper GI tract • Hold moisture in stools, softening them • Yield small fat molecules after fermentation that the colon can use for energy • Increase satiety	• Lower risk of heart disease • Lower risk of diabetes • Lower risk of colon and rectal cancer • Increased satiety, and may help with weight management
		Nonviscous, insoluble, less fermentable		
 Brian Leatart/Getty Images	• Brown rice, fruits, legumes, seeds, vegetables (cabbage, carrots, brussels sprouts), wheat bran, whole grains, extracted fibers used as food additives	• Cellulose • Lignins • Resistant starch • Hemicellulose	• Increase fecal weight and speed fecal passage through colon • Provide bulk and feelings of fullness	• Alleviate constipation • Lower risk of diverticulosis, hemorrhoids, and appendicitis • Lower risk of colon and rectal cancer

[a]*Psyllium, a soluble fiber derived from seeds, is used as a laxative and food additive.*

S&W 2014 fig 4-4 p 120

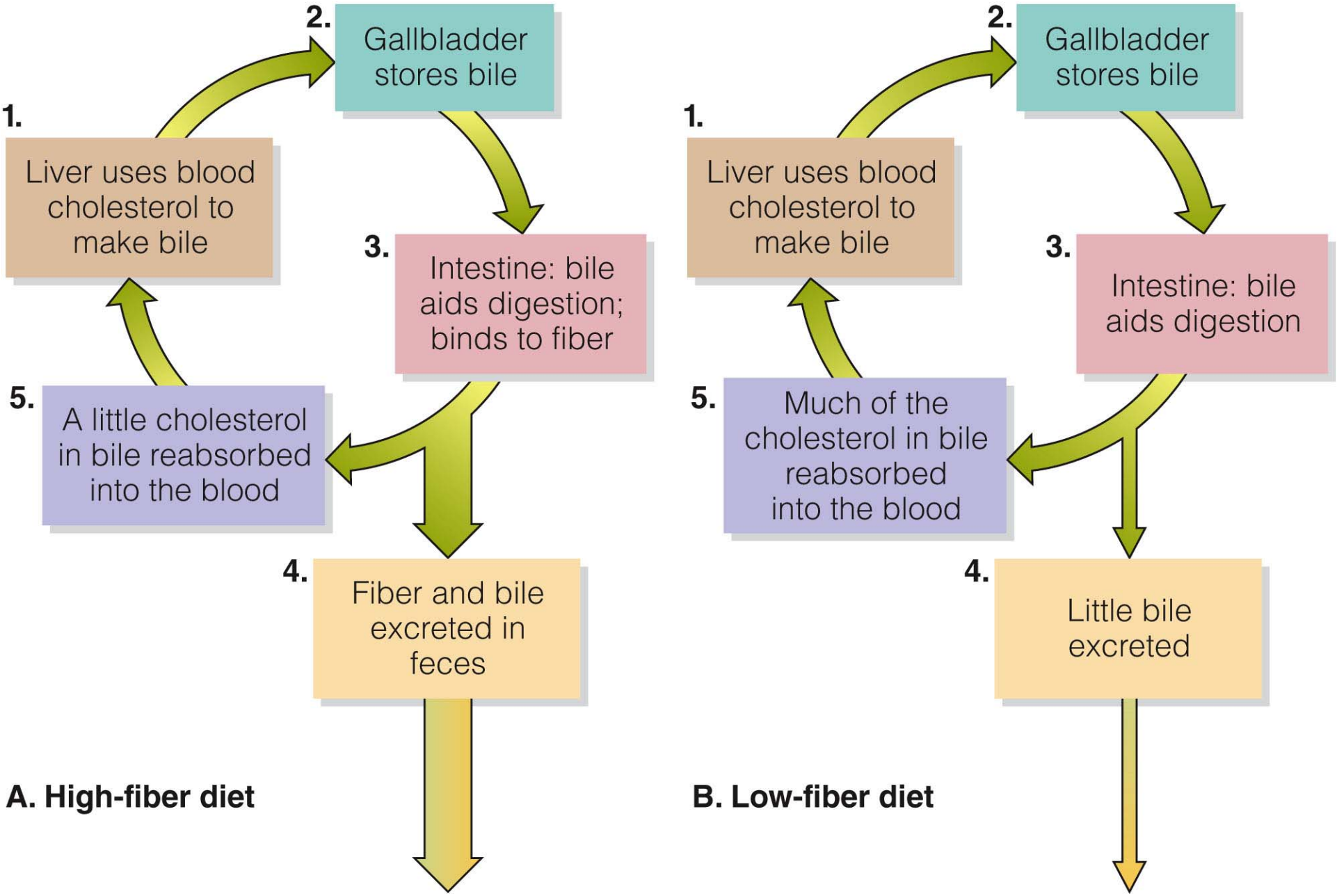
S&W 2014 fig 4-4 p 120

S&W 2014 fig 4-4 p 120

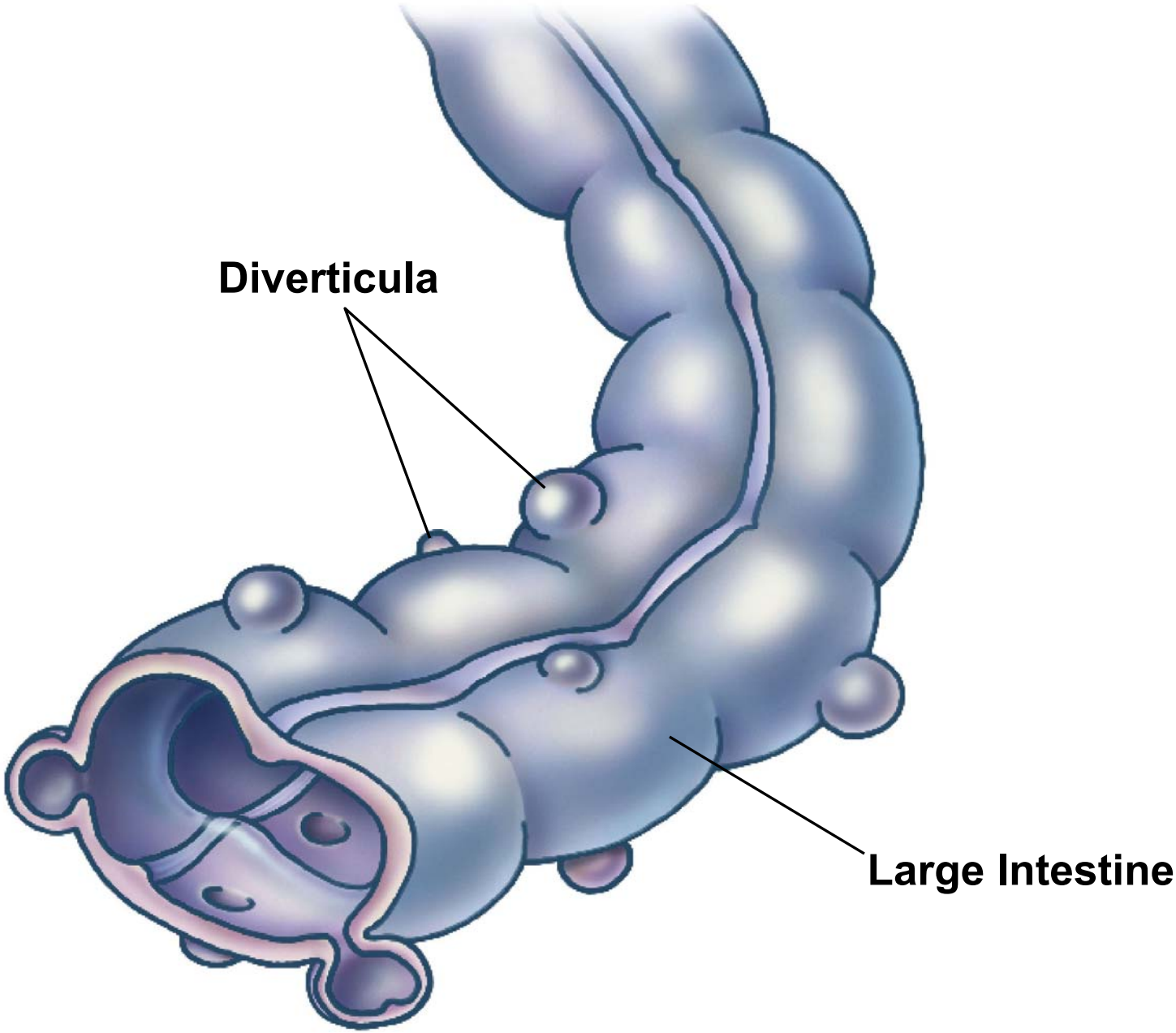


[a]*Values are for cooked or ready-to-serve foods unless specified.*
[b]*Psyllium is used as a fiber laxative and fiber-rich food additive.*

S&W 2014 fig 4-5 p 121

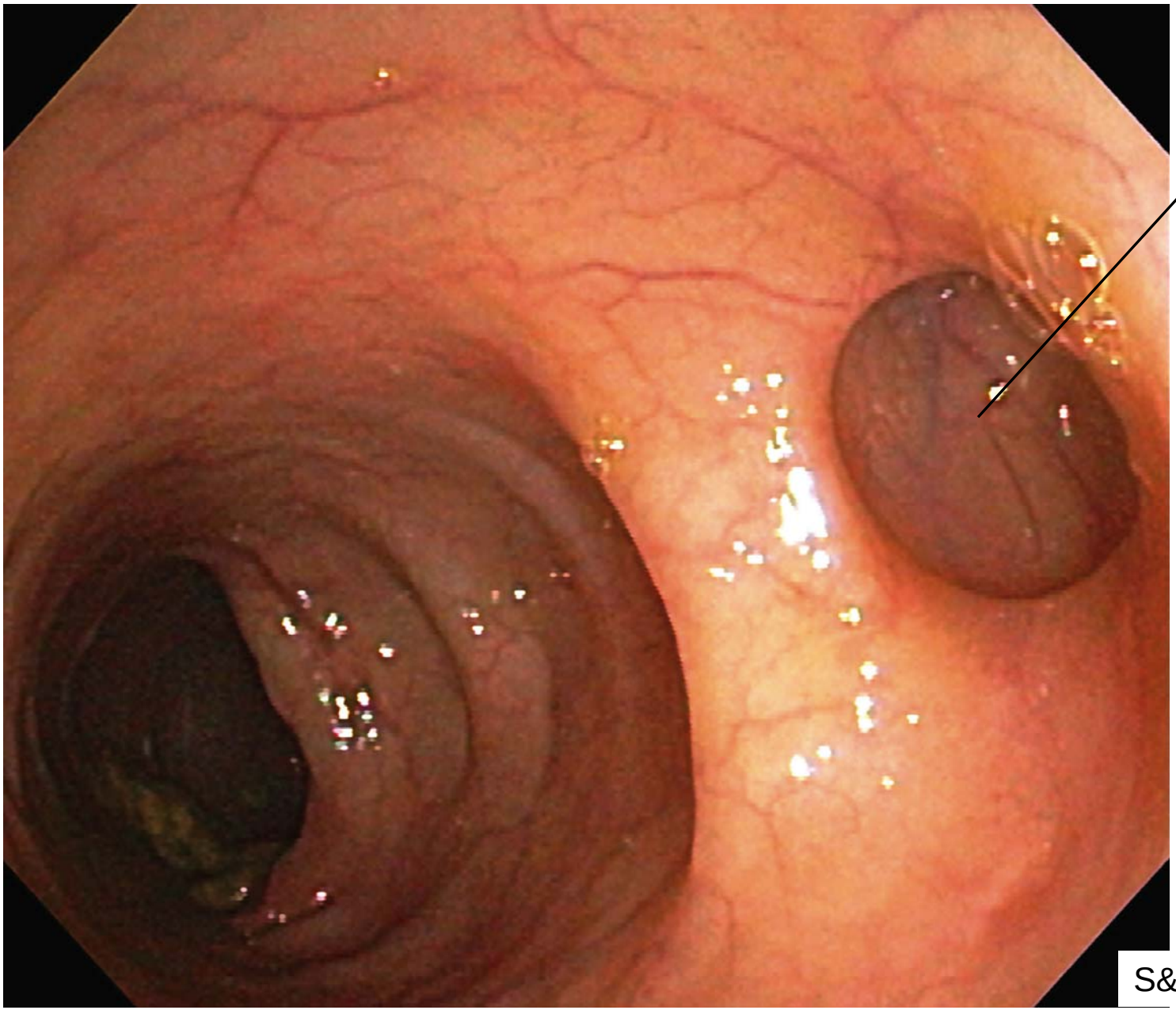


S&W 2014 fig 4-6 p 122



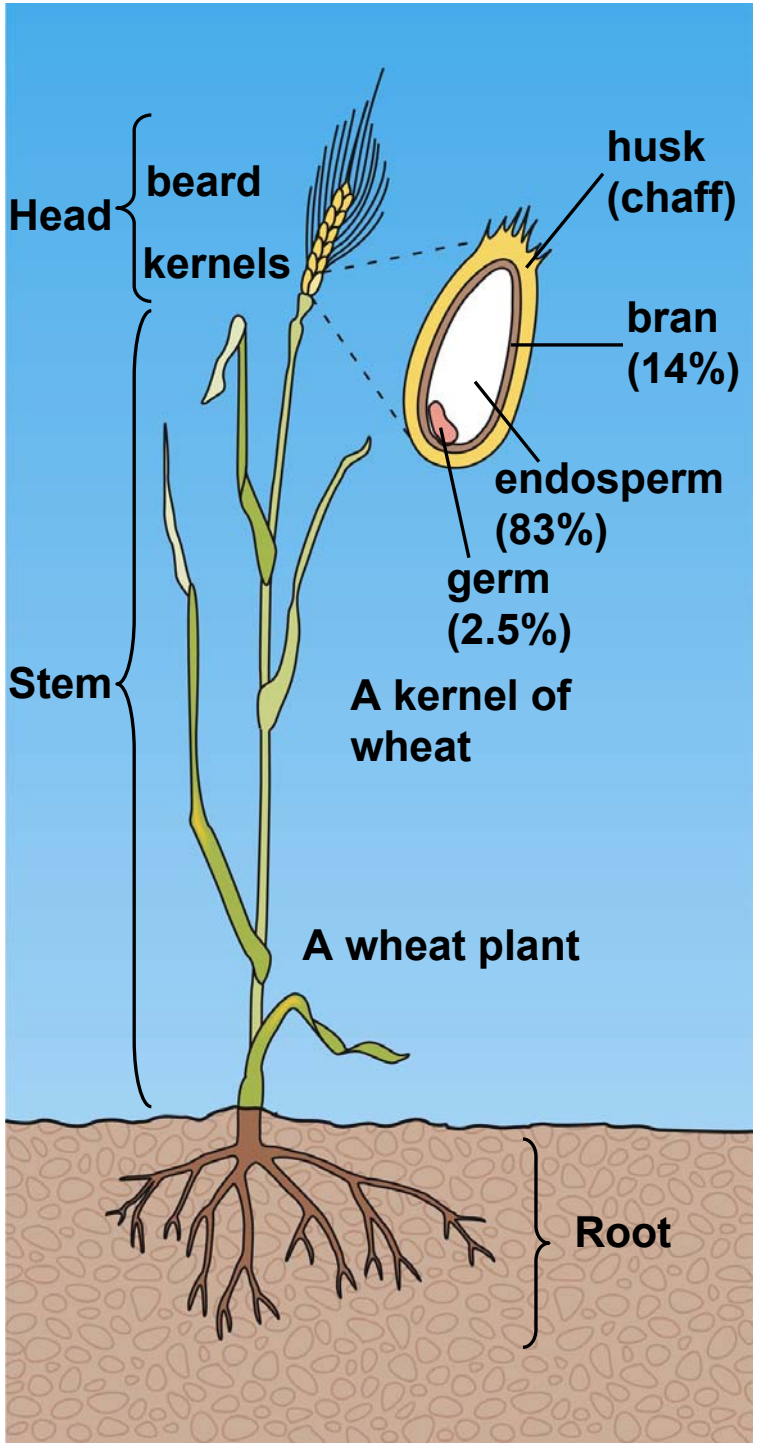
S&W 2014 fig 4-7 p 122

Diverticulosis?

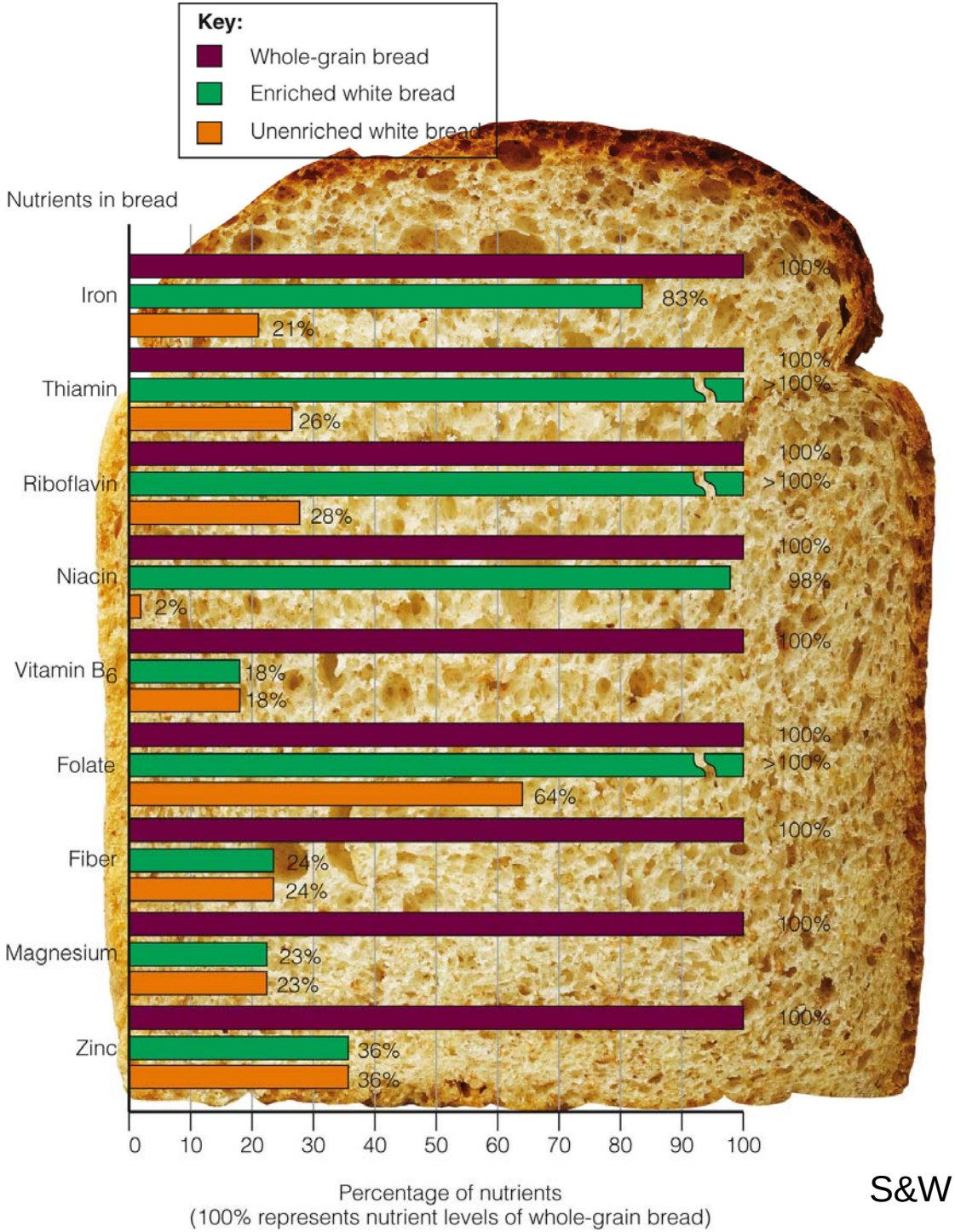


S&W 2014 fig 4-7 p 122

S&W 2014 fig 4-8 p 129



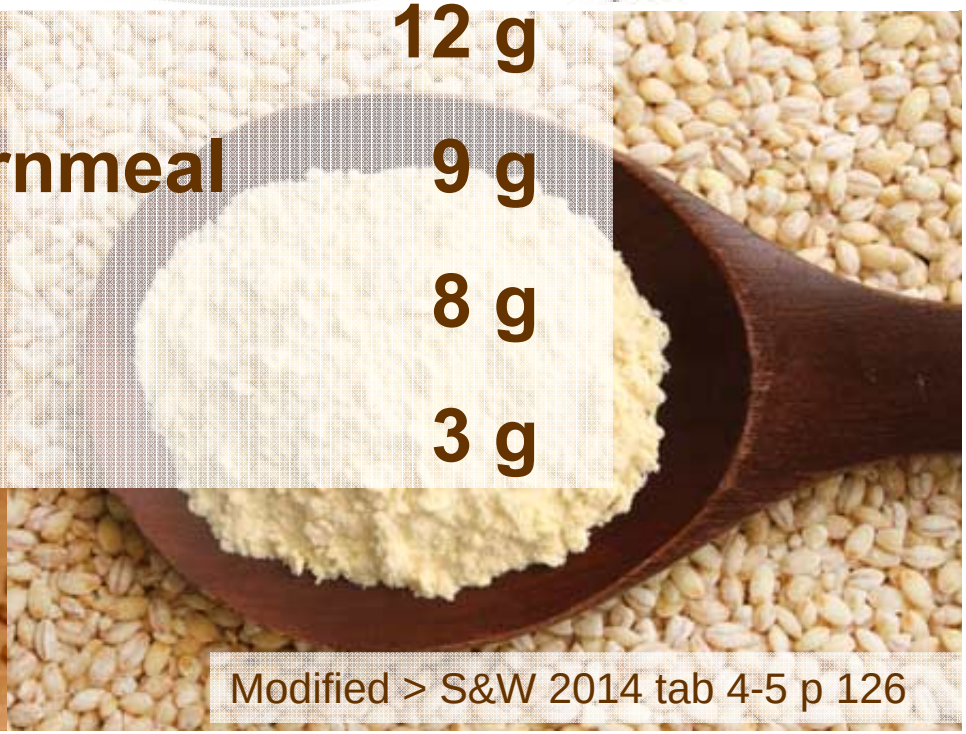
S&W 2014 fig 4-8 p 125



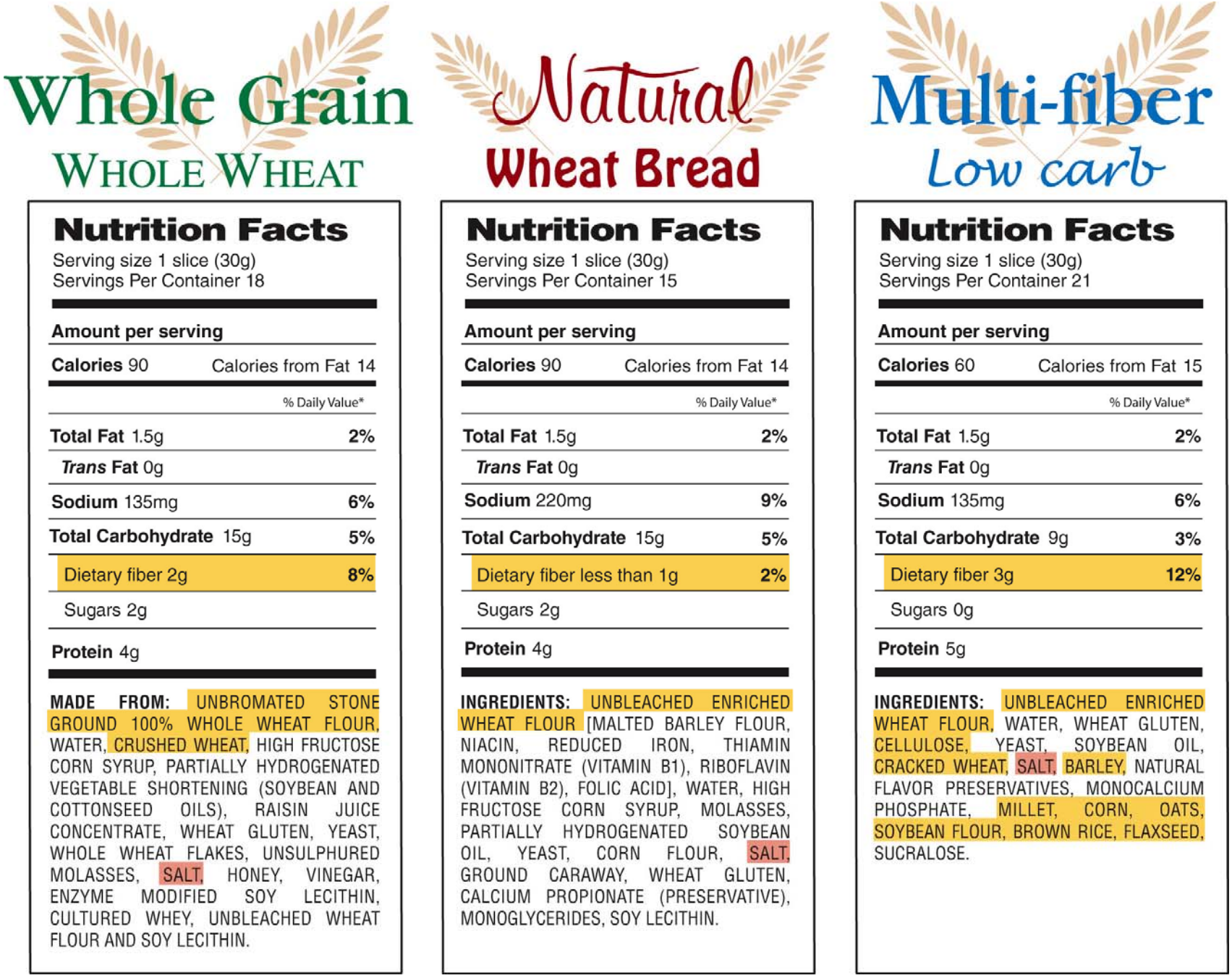
S&W 2014 fig 4-9 p 126

Grams of Fiber in 1 Cup of Flour

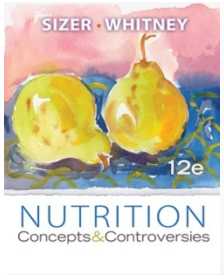
Dark Rye	31 g
Barley Flour	15 g
Whole Wheat	13 g
Buckwheat	12 g
Whole-grain Cornmeal	9 g
Light Rye	8 g
Enriched White	3 g



Modified > S&W 2014 tab 4-5 p 126



S&W 2014 fig 4-10 p 128



Why Do Some People Have Trouble Digesting Milk?

- Ability to digest milk carbohydrates varies
  - Lactase
    - Made by small intestine
- Symptoms of intolerance
  - Gas, diarrhea, pain, nausea?
- Milk allergy?
- Nutritional consequences
- Milk tolerance and strategies

BI 199 Nutritional Analyses

I. ***Attendance*** **– *Cards***

II. ***Goals*** **Analyze at least one day's diet with Diet Analysis Plus (DA+) *http://cengagebrain.com* & the USDA's *SuperTracker* *https://www.supertracker.usda.gov***

III. ***Save 6 .pdfs : 3 from DA+ & 3 from mypyramidtracker***

A. ***For DA Plus***

1. **DRI Report (Dietary Recommended Intakes)**
2. **Intake vs Goals (bar graph)**
3. **MyPlate Analysis**

B. ***For USDA SuperTracker (My Reports)***

1. **Food Groups & Calories**
2. **Nutrients**
3. **Meal Summary (*Food Details optional*)**

...send your answers to the questions & all 6 .pdfs by e-mail attachment to: *lombardi@uoregon.edu*

IV. ***Analyze Results & Answer Q You Received by e-mail***

V. ***Submit Your Answers & the Above 6 Reports to: lombardi@uoregon.edu***

Diet Analysis Plus System is now an on-line access program with Cengage Learning.

http://www.cengagebrain.com

Your access code is required.

Let us know if you need help!

DA

Profile: What You Need

Profile

Profile Name	phantom
Sex	Male
Height	5 ft. 10 inch.
Weight	173
Age	56 years
BMI	25
Activity Level	Active
Smoker	no
Vegetarian	no

DRI Goals

Nutrient	DRI	
Energy		
Calories	2888 kcal	
Carbohydrates	325 - 469 g	*45%-65% of kilocalories*
Fat	64 - 112 g	*20%-35% of kilocalories*
Protein	72 - 253 g	*10%-35% of kilocalories*
Protein	62.78 g	*Daily requirement based on grams per kilogram of body weight*
Fat		
Saturated Fat	32 g	*less than 10% of calories recommended*
Monounsaturated Fat	-	*No recommendation*
Polyunsaturated Fat	-	*No recommendation*
Cholesterol	300 mg	*less than 300mg recommended*

Intake vs. Goals: What You Got

Oct 12, 2011

Pat Lombardi, lombardi@uoregon.edu

Profile: Phantom, Intake vs. Goals for Oct 12, 2011 - Oct 12, 2011

Nutrient	DRI	Intake	0% 25% 50% 75% 100%
Energy			
Kilocalories	2398 kcal	2,111.85 kcal	88%
Protein	62.41 g	110.83 g	178%
Carbohydrate	258.0 - 373.0 g	244.63 g	
Fat, Total	51.0 - 89.0 g	80.04 g	
Fat			
Saturated Fat	< 23 g	17.71 g	77%
Monounsaturated Fat	*	36.5 g	
Polyunsaturated Fat	*	16.75 g	
Trans Fatty Acid	*	0.15 g	
Cholesterol	< 300 mg	403.4 mg	134%
Essential Fatty Acids			
Omega-6 Linoleic	14 g	10.94 g	78%
Omega-3 Linolenic	1.6 g	1.79 g	112%
Carbohydrates			
Dietary Fiber, Total	30 g	28.72 g	96%
Sugar, Total	*	92.5 g	
Other			
Water	3.7 L	1.43 L	39%
Alcohol	*	0 g	

MyPlate Analysis
How This Compares to the Food Guidance System

Oct 12, 2011

Pat Lombardi, lombardi@uoregon.edu

Profile: Phantom, MyPlate Analysis for Oct 12, 2011 - Oct 12, 2011

	Goal*		Actual	% Goal
Grains	**8.0 oz. eq.**	tips	**6.9 oz. eq.**	85.7%
Vegetables	**3.0 cup eq.**	tips	**3.1 cup eq.**	104%
Fruits	**2.0 cup eq.**	tips	**3.8 cup eq.**	190.9%
Dairy	**3.0 cup eq.**	tips	**1 cup eq.**	33.3%
Protein Foods	**6.5 oz. eq.**	tips	**10.9 oz. eq.**	168.2%
Empty Calories	**362.0**		**337.4**	93.2%

Your results are based on a 2398 calorie pattern.

Make Half Your Grains Whole! Aim for at least 4.0 oz. eq. whole grains.

Food List is Helpful, Too!

Oct 12, 2011

Pat Lombardi, lombardi@uoregon.edu

Profile: Phantom, Daily Food Log for Oct 12, 2011

Breakfast

ODWALLA B MONSTER Fruit Smoothie Blend, Blueberry	4 fl. oz.	70 kCal
Oatmeal, Cooked with Water	0.75 c.	125 kCal
CANNOLA Margarine, Soft	2 t.	67 kCal
Sugar, Brown	2 t.	23 kCal
Juice, Orange, Chilled, Includes from Concentrate, Fortified w Calcium	4 fl. oz.	59 kCal
ODWALLA Fruit Smoothie Blend, Strawberry Banana	4 fl. oz.	65 kCal
Beef, Chuck, Blade Roast, Select, Separable Lean, 0" Fat, Braised	0.5 oz.	34 kCal
Tomatoes, Red	0.25 item	6 kCal
Cucumber	1 t.	0 kCal
Eggs, Fried	1 item	90 kCal

Lunch

Bagel, Sesame Seed, Enriched	0.25 item	46 kCal
Mustard, Yellow	0.5 t.	2 kCal
Beef, Chuck, Blade Roast, 0" Fat, Braised	2 oz.	197 kCal
Cucumber	0.2 c.	3 kCal
Tomatoes, Red	0.25 item	6 kCal

Dinner

Pepper, Black, Ground	0.33 t.	2 kCal
Basil, Ground	0.12 t.	0 kCal
Pepper, Black, Ground	0.25 t.	1 kCal
Juice, Lemon	0.25 t.	0 kCal
Parsley, Dried	0.25 t.	0 kCal
Couscous, Cooked	0.75 c.	132 kCal
Snapper, Mixed Species, Cooked, Dry Heat	3 oz.	109 kCal

SuperTracker

USDA United States Department of Agriculture

Today

07/01/12

Physical Activity Target

Week of 07/01/12 to 07/07/12

Target	AT LEAST **150** minutes per week
Actual	**0** minutes

Daily Calorie Limit

Allowance	**2600**
Eaten	**3307**
Remaining	**0**

Daily Food Group Targets

More Info>

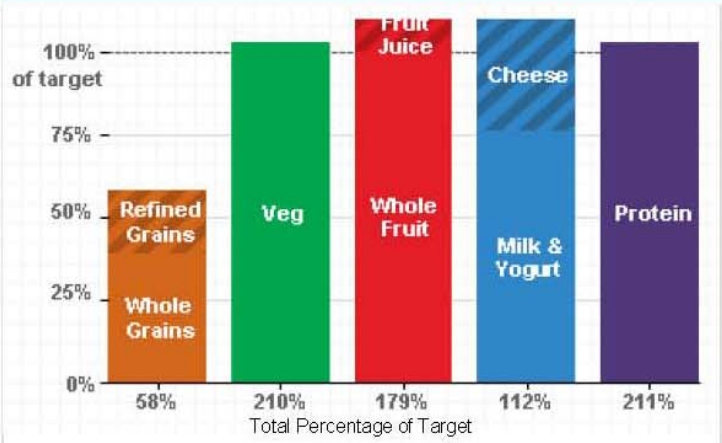
	Grains	Vegetables	Fruits	Dairy	Protein Foods
Target	9 oz.	3½ cup(s)	2 cup(s)	3 cup(s)	6½ oz.
Eaten	5½ oz.	7¼ cup(s)	3½ cup(s)	3¼ cup(s)	13½ oz.
Status	Under	Over	Over	OK	Over

Food Tracker

Search and add food to view how your daily choices stack up to your food group targets and daily limits. Make tracking and planning ahead simple by using the Copy Meals and Create a Combo features.

Search: All Foods **for** Go

Search Tips



Graph | Data

Related Links: Nutrient Intake Report | View By Meal

Daily Limits

Total Calories Eaten: 3307

Empty Calories* Eaten: 444

phantom's Food Groups and Calories Report 07/01/12 - 07/01/12

Your plan is based on a **2600 Calorie** allowance.

Food Groups	Target	Average Eaten	Status
Grains	9 ounce(s)	5½ ounce(s)	Under
Whole Grains	≥ 4½ ounce(s)	3½ ounce(s)	Under
Refined Grains	≤ 4½ ounce(s)	1½ ounce(s)	OK
Vegetables	3½ cup(s)	7¼ cup(s)	Over
Dark Green	2½ cup(s)/week	½ cup(s)	Under
Red & Orange	7 cup(s)/week	½ cup(s)	Under
Beans & Peas	2½ cup(s)/week	½ cup(s)	Under
Starchy	7 cup(s)/week	0 cup(s)	Under
Other	5½ cup(s)/week	6 cup(s)	Over
Fruits	2 cup(s)	3½ cup(s)	Over
Whole Fruit	No Specific Target	2 cup(s)	No Specific Target
Fruit Juice	No Specific Target	1½ cup(s)	No Specific Target
Dairy	3 cup(s)	3¼ cup(s)	OK
Milk & Yogurt	No Specific Target	2¼ cup(s)	No Specific Target
Cheese	No Specific Target	1 cup(s)	No Specific Target
Protein Foods	6½ ounce(s)	13½ ounce(s)	Over
Seafood	10 ounce(s)/week	13 ounce(s)	Over
Meat, Poultry & Eggs	No Specific Target	0 ounce(s)	No Specific Target
Nuts, Seeds & Soy	No Specific Target	½ ounce(s)	No Specific Target
Oils	8 teaspoon	16 teaspoon	Over

Limits	Allowance	Average Eaten	Status
Total Calories	2600 Calories	3307 Calories	Over
Empty Calories*	≤ 362 Calories	444 Calories	Over
Solid Fats	*	293 Calories	*
Added Sugars	*	152 Calories	*

*Calories from food components such as added sugars and solid fats that provide little nutritional value. Empty Calories are part of Total Calories.

Note: If you ate Beans & Peas and chose "Count as Protein Foods instead," they will be included in the Nuts, Seeds & Soy subgroup.

phantom's Nutrients Report 07/01/12 - 07/01/12

Your plan is based on a **2600 Calorie** allowance.

Nutrients	Target	Average Eaten	Status
Total Calories	2600 Calories	3307 Calories	Over
Protein (g)***	56 g	181 g	OK
Protein (% Calories)***	10 - 35% Calories	22% Calories	OK
Carbohydrate (g)***	130 g	357 g	OK
Carbohydrate (% Calories)***	45 - 65% Calories	43% Calories	Under
Dietary Fiber	30 g	51 g	OK
Total Fat	20 - 35% Calories	38% Calories	Over
Saturated Fat	< 10% Calories	9% Calories	OK
Monounsaturated Fat	No Daily Target or Limit	15% Calories	No Daily Target or Limit
Polyunsaturated Fat	No Daily Target or Limit	11% Calories	No Daily Target or Limit
Linoleic Acid (g)***	14 g	32 g	OK
Linoleic Acid (% Calories)***	5 - 10% Calories	9% Calories	OK
α-Linolenic Acid (g)***	1.6 g	4.2 g	OK
α-Linolenic Acid (% Calories)***	0.6 - 1.2% Calories	1.1% Calories	OK
Omega 3 - EPA	No Daily Target or Limit	1808 mg	No Daily Target or Limit
Omega 3 - DHA	No Daily Target or Limit	2530 mg	No Daily Target or Limit
Cholesterol	< 300 mg	340 mg	Over
Minerals	**Target**	**Average Eaten**	**Status**
Calcium	1000 mg	1814 mg	OK
Potassium	4700 mg	7348 mg	OK
Sodium**	1500 mg	3805 mg	Over
Copper	900 µg	3407 µg	OK
Iron	8 mg	22 mg	OK
Magnesium	420 mg	692 mg	OK
Phosphorus	700 mg	3165 mg	OK
Selenium	55 µg	325 µg	OK
Zinc	11 mg	17 mg	OK
Vitamins	**Target**	**Average Eaten**	**Status**
Vitamin A	900 µg RAE	1270 µg RAE	OK
Vitamin B6	1.7 mg	4.0 mg	OK
Vitamin B12	2.4 µg	16.1 µg	OK

Meals from 07/01/12 - 07/01/12

phantom's Meals

phantom, your plan is based on a **2600 Calorie** allowance.

Date	Breakfast	Lunch	Dinner	Snacks
07/01/12	• 1 medium (7" to 7-7/8" long) Banana, raw • ¾ cup Blueberries, raw • ½ cup Milk, fat free (skim) • ½ cup Orange juice, frozen, calcium added (reconstituted with water) • 1 cup, spoon size biscuits Shredded Wheat Cereal, 100% • 3 large (1-3/8" across) Strawberries, raw	• 1½ tablespoon Blue or roquefort cheese dressing • ½ cup Chickpeas (garbanzo beans), canned (no fat added) • 1¼ cup Lettuce, green or red leaf • 1½ medium leaf Lettuce, green or red leaf • 1 tablespoon Mayo, regular • ¼ cup Mushroom, fresh, cooked (no salt or fat added) • 2 teaspoon Mustard • 1 cup Orange juice, freshly squeezed • 1 hamburger or hot dog bun Roll, wheat or cracked wheat • 1½ slice (1 oz) Swiss cheese • 1 patty Vegetarian or soy burger (Boca burger, Gardenburger), no bun	• 1 tablespoon Blue or roquefort cheese dressing • 1 regular slice (3-3/4" x 5" x 1/2") Bread, 100% whole wheat, homemade or bakery • ½ cup, cut stalks Broccoli, fresh, cooked (no salt or fat added) • ½ bar (1.5 oz) Chocolate candy, sweet or dark (Hershey's Special Dark) • 5 slice Cucumber, raw • 1 packet Hot pepper sauce • 1 sandwich Ice cream sandwich, light vanilla ice cream • 1½ tablespoon Jam, preserves, all flavors • 2 pat (teaspoon) Margarine, stick, salted • 1 tablespoon Mayo, regular • 1 cup Mushrooms, fresh, cooked (no salt or fat added) • 2 tablespoon Olive oil • 1 cup Onion, fresh, cooked (no salt or fat added) • ½ small porgy Porgy, (snapper), baked or broiled with oil • 2 cup Salad, with lettuce, avocado, tomatoes, and/or carrots, no dressing	*EMPTY*