

Nutrition for Health



The Importance of Nutrition

Ch. 10

A. Why Nutrition Matters

Foods & Labels

Tim Hawkins- fast food

1. What is nutrition?

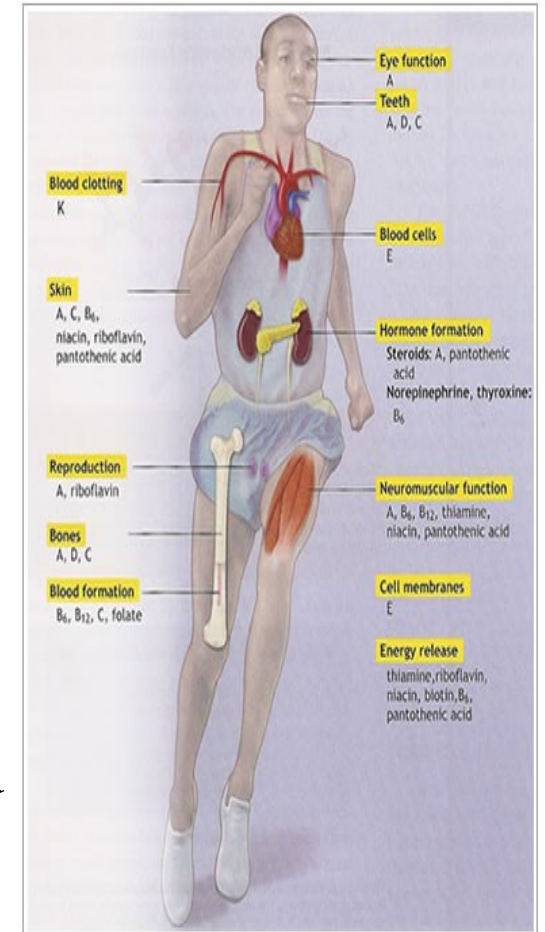
The process by which your body takes in food

2. What are nutrients?

Substances in food your body needs to grow, repair itself, and supply energy

3. What is a calorie?

Unit of heat used to measure energy the body uses and energy received from food



B. Nutrients That Provide Energy

1. Carbohydrates- body's main source of energy

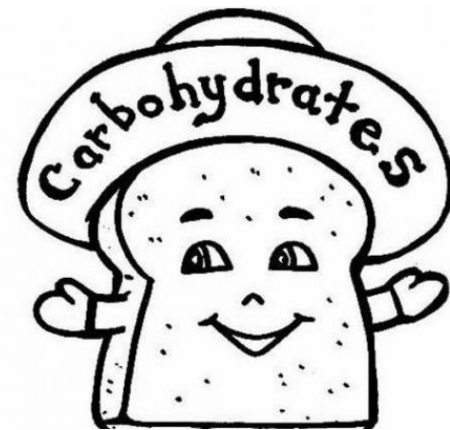
- a. provides four calories per gram; needs are about 300 g per day



- b. the role of carbs- broken down into glucose, the main source of fuel

Carbohydrate/Insulin Response

McD's Cup Sizes Around the World

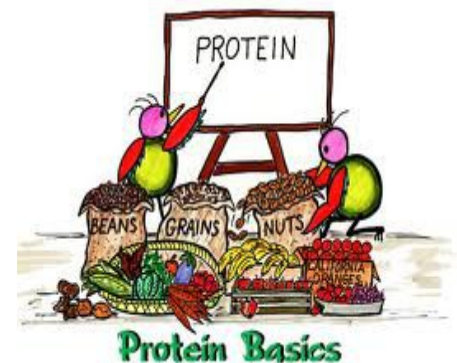
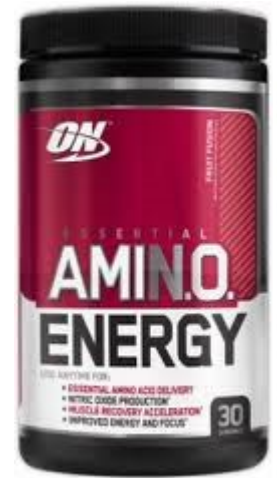


2. Protein- used to build & maintain cells & tissues

a. essential amino acids- those we must get from food

b. nonessential amino acids- those we produce

c. provide four calories per gram; needs are about 45-55 g per day



Fast Food Aging

Chick-fil-A Song

3. Types of fats

a. unsaturated- healthy fat



b. saturated- may be an unhealthy fat



c. trans fats- the worst fat



d. fats have nine calories per gram; needs are 65-80 g per day or less

C. Nutrients That Do Not Supply Energy

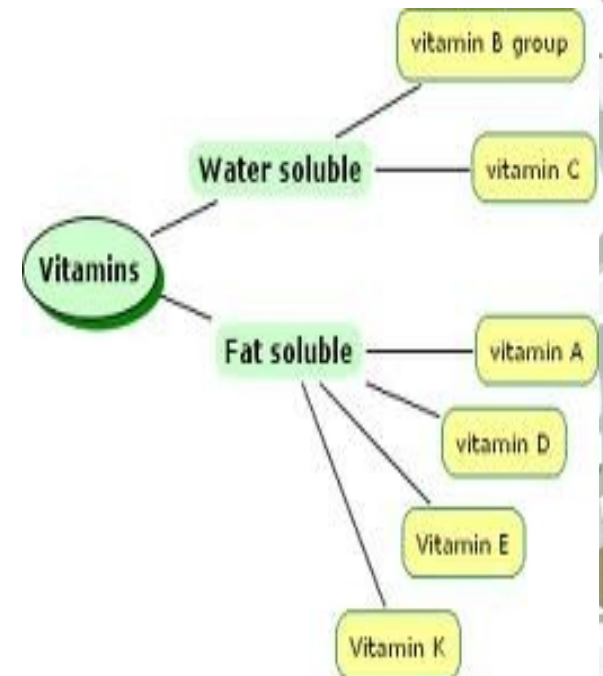
1. Vitamins

a. vitamins B, C, & folic acid are water-soluble



You would never
guess how many
vitamins i can
swallow at once.
(hint: its about
28.)

b. vitamins A, D, E, & K are fat-soluble



2. Minerals- elements found in food the body uses for a variety of functions; iron, calcium, etc.

Iron

The best source of iron is lean red meat. Iron can also be found in chicken, turkey, eggs, and cereals.



3. Water- most essential nutrient; 20% of our intake comes from the food we eat; need depend on size & activity level



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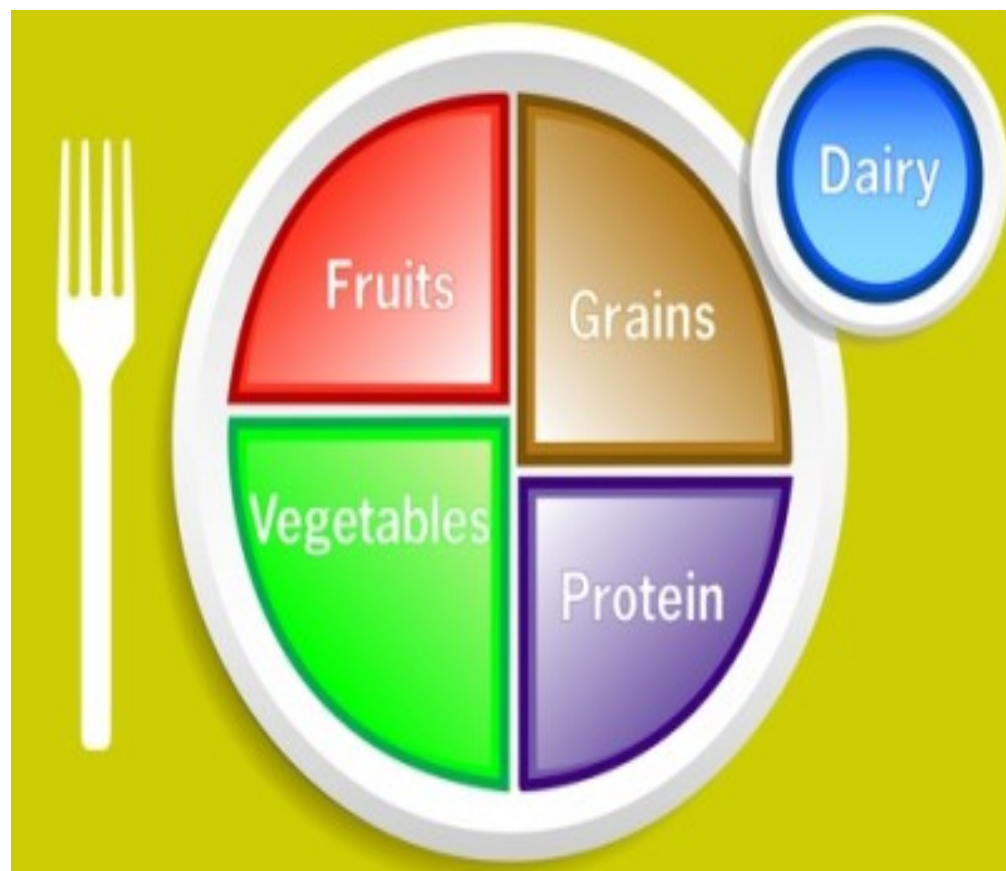
Vitamin or Mineral Overdose can cause:

1. HEADACHE
2. FATIGUE
3. GASTROINTESTINAL PROBLEMS
4. DIARRHEA
5. HAIR LOSS
6. INSOMNIA
7. JOINT PAIN
8. BLEEDING
9. DEHYDRATION
10. ORGAN DAMAGE
11. MUSCLE CRAMPS

D. Dietary Guidelines for Americans

1. Make smart choices from every food group

- a. grains
- b. vegetables
- c. fruits
- d. milk
- e. meats & beans



MyPlate

MyPlate News

Best Foods

1. Black beans
2. Salmon
3. Walnuts
4. Pumpkin
5. Apples
6. Blueberries
7. Strawberries
8. Bananas
9. Broccoli
10. Spinach
11. Sweet potatoes
12. Kidney beans
13. Red beets
14. Eggplant
15. Brussels sprouts
16. Tomatoes
17. Whole-wheat bread
18. Oranges
19. Lean meat
20. Flax seeds
21. Almonds
22. Tuna
23. Fat-free milk
24. Fat-free Greek yougurt
25. Dark chocolate
26. Extra-virgin olive oil
27. Eggs
28. Oatmeal
29. Avocado
30. Peanut butter
31. Popcorn
32. Sardines
33. Onions
34. Raspberries
35. Brown rice
36. Red peppers
37. Oysters
38. Beef liver
39. Mushrooms
40. Pomegranates

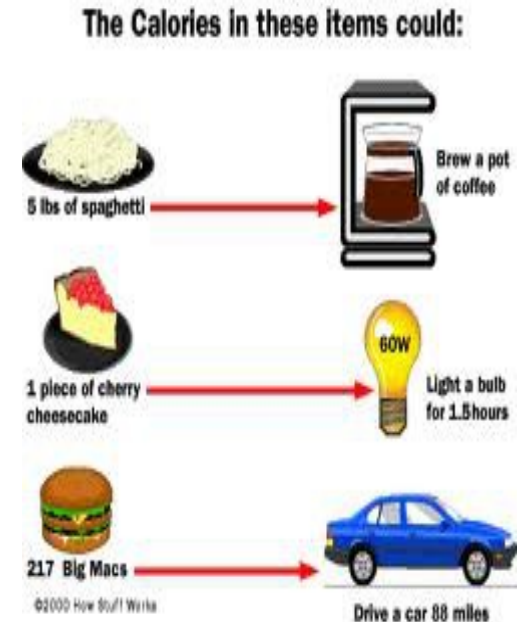
Maintaining a Healthy Weight

Chapter 11

A. The Calorie Connection

1. Your energy balance

- metabolism- the process by which the body breaks down substances and gets energy from food
- 3500 calories is equal to one pound of body fat



B. Maintaining Weight

8% body fat

1. Body Mass Index (BMI)- measure of weight relative to height
2. Body composition- ratio of fat to lean tissue in the body
3. Obese- having an excess of body fat



Celebrities And Eating Disorders



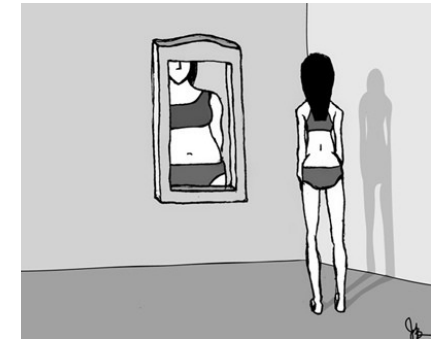
Reality

Nancy

C. Eating Disorders- extreme, harmful eating behaviors

1. Anorexia nervosa- an irrational fear of weight gain leads people to starve themselves

- a. avoids food
- b. eating only a few foods
- c. counting calories
- d. exercising excessively
- e. weighing themselves repeatedly
- f. health risks



2. Bulimia nervosa- involves cycles of overeating & purging Dr. Phil

a. binge (eating huge amounts in one sitting) & purge (get rid of)

b. fear of weight gain

c. exercise excessively

d. normal weight range

e. health consequences



3. Binge Eating Disorder- people overeat compulsively

a. binge but DO NOT purge

b. more common in males than other E.D.'s



c. can develop many health problems

4. Health Conditions

a. diabetes- can develop high blood sugar levels



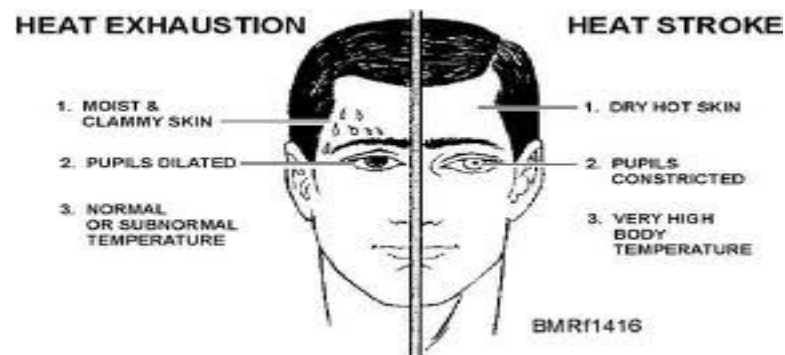
b. Celiac disease- unable to tolerate a protein called gluten



c. high cholesterol- increased by poor diet choices & heredity

D. Exercise Concerns

1. Heatstroke- condition in which the body loses the ability to cool itself through perspiration
2. Overuse injuries- caused by repetitive trauma; training errors
3. Lack of sleep- teens need about nine hours per night
4. Caloric intake- active boys many need 2400-3200 each day; active girls may need 1800-2400 each day



“Healthy” Restaurant Assignment

Choose your favorite meal from the restaurant provided

Record the following information:

1. The food and beverages you picked for this meal
2. The number of calories, fat grams, saturated fat grams, trans fat grams, cholesterol mg, sodium mg and sugar grams

“Healthy” Restaurant Assignment

Choose a fast food restaurant and create a fast food plan for one day that meets the following guidelines:

1. You have three meals- main dish, side dish, and drink
2. One snack for the whole day
3. No items can be used twice, except for beverages
4. Ketchup, mustard, salsa, buns, etc. are not side or main dishes
5. You check nutrient values of food and meet the following numbers:
 - a. Less than/equal to 2500 calories
 - b. Less than/equal to 70 g of total fat
 - c. Less than/equal to 20 g of saturated fat
 - d. Less than/equal to 1.5 g of trans fat
 - e. Less than/equal to 2400 mg of sodium
 - f. Less than/equal to 300 mg of cholesterol
 - g. Less than/equal to 40 g of sugar

Nutrition information can be found by doing a Google search for the restaurant

Your grade is dependent on staying **below** the numbers stated above for the **entire** day of eating, not just one meal. Make a table with columns for a-g to do this.

See Next Slide

The numbers below represent your goal for the whole day

Meal	Calories	Total Fat	Sat. Fat	Trans Fat	Sodium	Cholesterol	Sugar
	≤2500	≤70g	≤20g	≤1.5g	≤2400mg	≤300mg	≤40g

Total =

Total =

Total =

Total =

Total =

Total =

Total =

Meal	Calories	Total Fat	Sat. Fat	Trans Fat	Sodium	Cholesterol	Sugar
	≤2500	≤70g	≤20g	≤1.5g	≤2400mg	≤300mg	≤40g
Egg McMuffin	300	12	5	0	820	260	3
Hash brown	150	9	1.5	0	310	0	0
Orange juice	140	0	0	0	5	0	29
Cheeseburger	300	12	6	.5	750	40	6
Fries	230	11	1.5	0	160	0	0
Coke	210	0	0	0	1	0	58
McChicken	360	16	3	0	830	35	5
Side salad	20	0	0	0	10	0	2
Water	0	0	0	0	0	0	0
Hot Fudge Sundae	330	10	7	0	180	25	48
	<u>Total</u> 2040	<u>Total</u> 70	<u>Total</u> 24	<u>Total</u> .5	<u>Total</u> 3066	<u>Total</u> 360	<u>Total</u> 151

Food Inc. Day 1- KWL Chart

Create a KWL chart on the following topic(s):

What I Know
5 Items

What I Would Like to Know
5 Items

What I Learned
5 Items

Food Inc. Exit Ticket- Day Two

1. Explain, using one complete sentence for each, the role or blame that each of the following has in the death of a child who eats contaminated food:
 - a. the restaurant
 - b. food producer or farmer
 - c. slaughter house
 - d. the government or lobbyists
2. The film gives the impression that food is either cheap or healthy. Do you think that it is true that food is either one or the other, or is this a false dichotomy? One paragraph response.

Food Inc. Exit Ticket- Day Three

1. Saving seeds from each year's crop is a tradition farmers have followed for thousands of years. Think of a tradition that has been in your family for a long time. How would you feel if you could no longer have this tradition because someone now legally claims it as theirs? Explain- 1 paragraph
2. This film documented the mistreatment of animals that can occur in the process of preparing food. The mistreatment of humans was also documented. In one paragraph, explain several ways in which the suffering of humans was shown.
3. If healthful, environmentally sustainable food were to cost less than other food, do you think people would eat more of it? Why or why not?

Supersize Me Daily Quiz (1)

Three product points per question

Directions: Answer each question in complete sentences

1. What is Morgan's health status at the beginning of the experiment?
Explain thoroughly please!
2. What are three rules for Morgan has for his experiment?
3. What effects do doctors think the experiment will have on Morgan?
Explain thoroughly please!
4. What did they mean in the film when they stated that we live in a
“toxic environment” today?

Supersize Me Daily Quiz (2)

Three product points per question

Directions: Answer each question in complete sentences

1. How does eating McDonald's make Morgan feel? State two things.
2. What are three changes that have taken place with Morgan up to this point in the experiment?
3. What are three characteristics of the school lunches in the schools Morgan visited?

Supersize Me Daily Quiz (3)

Three product points per question

Directions: Answer each question in complete sentences

1. What is a calorie?
2. As this experiment continues on, how do the doctors feel about the results they find in Morgan? What do they advise him to do?
3. What are three of the final results of Morgan's weigh in and blood tests?
4. In 50 words or more, describe how this movie influenced you.

Supersize Me Daily Quiz

Day One

Directions: Begin KWL and write 50 word response to question 1.

The first two parts of a KWL chart should be completed before the start of the movie Supersize Me. KWL chart includes:

K- What I know about fast food (5 things)

W- What I would like to know about fast food (5 things)

L- What did I learn about fast food or the food industry (5 things)

1. Predict what will happen to Morgan as he experiences 30 days of McDonald's meals. Consider not only his health, but how do you believe this will impact other areas of his life as well?

Supersize Me Daily Quiz

Day Two

Directions: Write a response of 50 words to the item below

1. Do you believe that students should have the right/option to choose from a much wider variety of healthy and unhealthy foods in the school cafeteria? Explain.

Supersize Me Daily Quiz

Day Three

Directions: Respond to items 1-2 below

1. Morgan did this experiment in 30 days, eating McDonald's for all of his meals. Do you believe the negative impact on physical and mental health would be the same if he had spread this experiment out over a few years, eating the food once or twice a week? Explain, using one solid paragraph.
2. Visualize this 30-day experiment happening at Subway, Panera Bread, or Chick-fil-A. In one solid paragraph, describe how this movie would have been similar or much different. Be specific.

FED UP!

Exit Ticket

20 product points

1. What are five things you liked (five main messages) about the movie Fed Up?
2. What are five questions (I wonder's) you have after watching the movie Fed Up?
3. Does this film target the food industry in an unfair way? Do you feel that much of the food we eat today will one day be socially unacceptable to consume the way cigarettes are today? Explain.
4. If you're being honest, does the film make you want to change your eating habits? Why or why not? What specific changes do you think you should make? Explain.

Bingo Test Review Word Bank

Hypothermia

Heatstroke

3500

4

Trans

B & C

60

Fiber

Binge eating disorder

Nutrition

Appetite

Water

Diabetes

Celiac disease

Calorie

Hunger

Unsaturated

Protein

Obesity

Metabolism

Flexibility

9

Bulimia nervosa

Fad

Body composition

Nutrient dense

Carbohydrates

Nutrients

BMI

Anorexia nervosa

McDonald's

Cheeseburger

Medium fries

Medium coke

Wendy's

Single Cheeseburger

Small chili

Medium coke

Subway

6" Spicy Italian- wheat

Chocolate chunk cookie

Sprite- 21 oz.

Chick-fil-A

Chick-fil-A sandwich

Waffle fries

Vanilla milkshake

Taco Bell

Doritos Locos Taco

Nachos & cheese

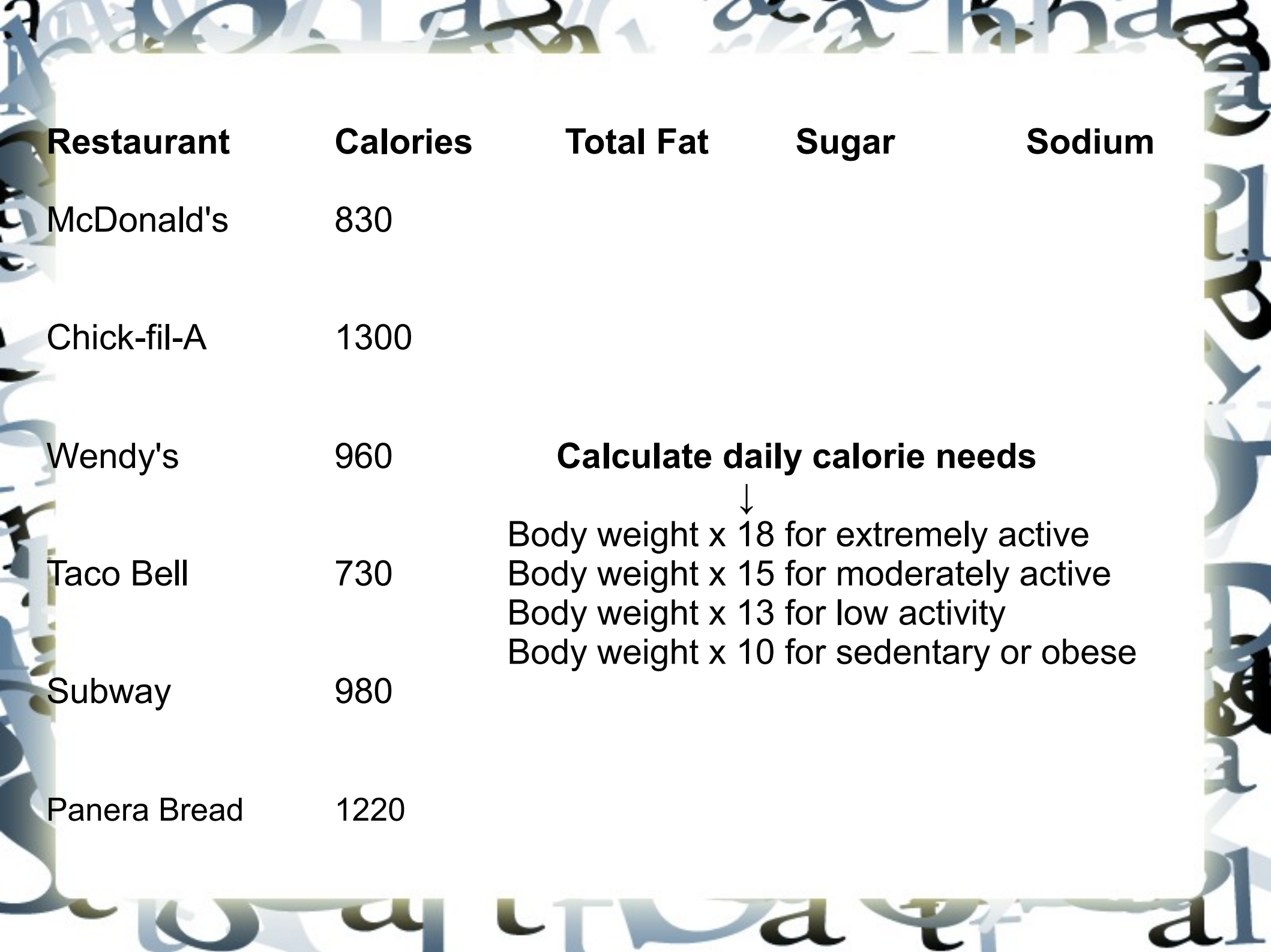
Medium Pepsi

Panera Bread

Chicken/ham/swiss- flatbread

Baked potato soup- cup

Low fat strawberry smoothie



Restaurant	Calories	Total Fat	Sugar	Sodium
McDonald's	830			
Chick-fil-A	1300			
Wendy's	960	Calculate daily calorie needs ↓ Body weight x 18 for extremely active Body weight x 15 for moderately active Body weight x 13 for low activity Body weight x 10 for sedentary or obese		
Taco Bell	730			
Subway	980			
Panera Bread	1220			

Restaurant	Calories	Total Fat	Sugar	Sodium
McDonald's		27g		
Chick-fil-A		57g		
Wendy's		36g	Recommendation is less than 65 g each day	
Taco Bell		27g		
Subway		34g		
Panera Bread		51.5g		

Restaurant	Calories	Total Fat	Sugar	Sodium
McDonald's			62g	
Chick-fil-A			80g	
Wendy's	Recommendation is less than 30 g per day		70g	
Taco Bell			53g	
Subway			93g	
Panera Bread			69g	

Restaurant	Calories	Total Fat	Sugar	Sodium
McDonald's				875mg
Chick-fil-A				1930 mg
Wendy's		Recommendation is less than 2400 mg per day		2015mg
Taco Bell				900mg
Subway				1650mg
Panera Bread				2080 mg

Restaurant	Calories	Total Fat	Sugar	Sodium
McDonald's	830	27g	62g	875mg
Chick-fil-A	1300	57g	80g	1930 mg
Wendy's	960	36g	70g	2015mg
Taco Bell	730	27g	53g	900mg
Subway	980	34g	93g	1650mg
Panera Bread	1220	51.5g	69g	2080 mg