

Weight Management

how to lose it and keep it off



By Dominique Wakefield Oct. 4, 2011

Today's objectives

- Why discuss 'weight management'?
- What does 'weight management' refer to?
- Methods of measurement and evaluation
- Basic principles of 'weight management'
- Practical applications

True or false?

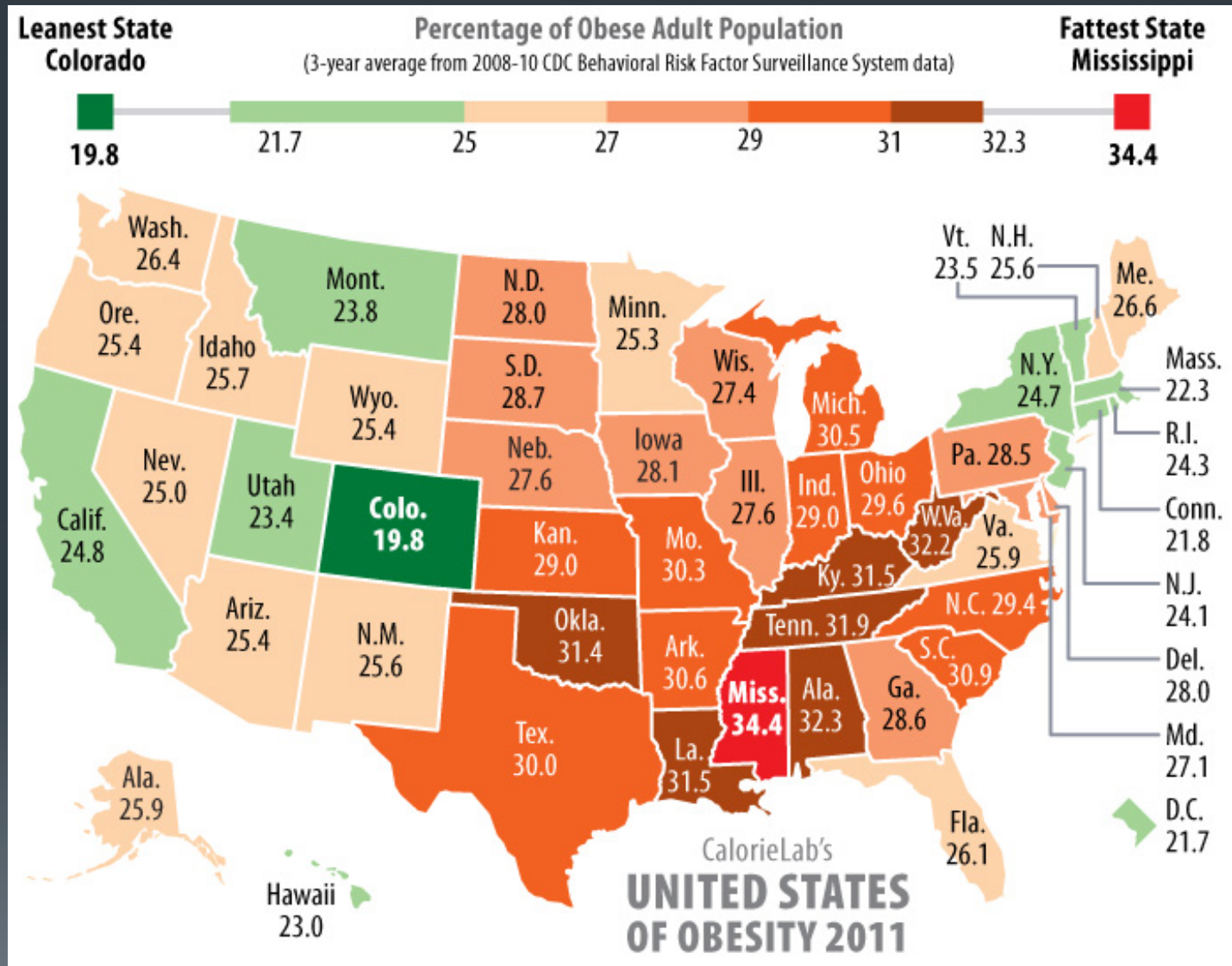
- You may be losing body fat even though the scales stay the same
- The best way to lose weight is to just count fat grams
- People tend to under estimate their food intake and over estimate their exercise output
- Fat provides more than twice as many calories as carbohydrates
- Skipping meals is a good way to lose weight
- In order to lose weight one should not eat after 6 p.m.

Overweight/Obesity

- Killer at Large

Current Condition

5



Facts

- Over 2/3 of Americans are overweight/obese
- About 34% of those are obese
- Childhood obesity rates have tripled since the 1980s
- Every third child born since 2000 will experience diabetes 2 in their life time

5 components of physical fitness

1. Cardiorespiratory Endurance
2. Muscular Strength
3. Muscular Endurance
4. Flexibility

5. Body Composition

What Is Body Composition?

8

- Body composition is the body's relative amounts of fat mass and fat-free mass
- Body fat includes two categories:
 - Essential fat is crucial for normal body functioning
 - 3–5% of total body weight in males
 - 8–12% of total body weight in females
 - The percentage is higher in women due to fat deposits in the breasts, uterus, and other sex-specific sites.
 - Most fat is storage in fat cells under the skin or adipose tissue (subcutaneous fat) and around major organs (visceral or intra-abdominal fat)

Body Composition of a Typical Man and Woman (20-24 Years Old)

9

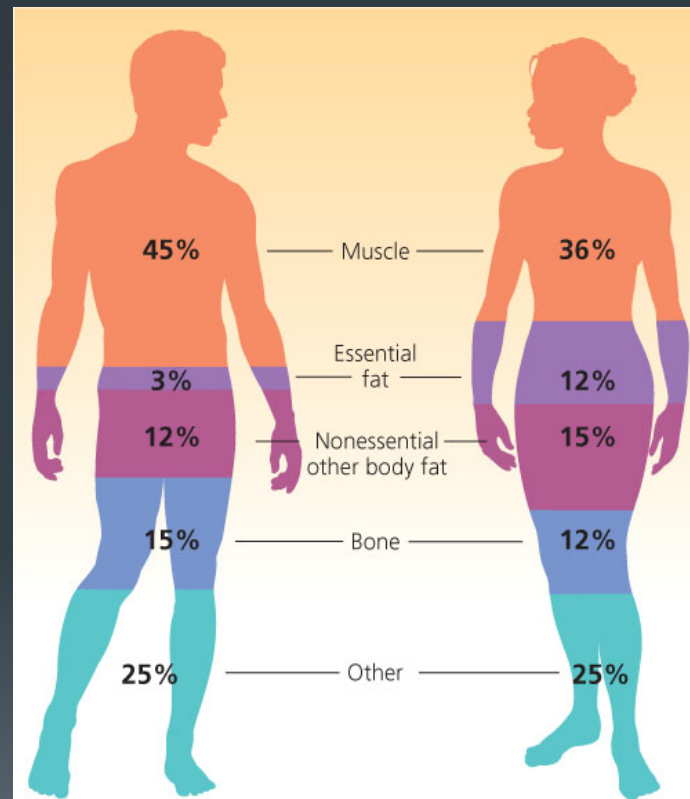


FIGURE 6.1 Body composition of a typical man and woman, 20–24 years old.

SOURCE: Adapted from Brooks, G. A., et al. 2005. *Exercise Physiology: Human Bioenergetics and Its Applications*, 4th ed. New York: McGraw-Hill.

Defining Overweight and Obesity

- Overweight is defined as total body weight above the recommended range for good health
- Obesity is defined as a more serious degree of overweight, characterized by excessive accumulation of body fat.
- The prevalence of obesity has increased from about 13% in 1960 to about 34% today

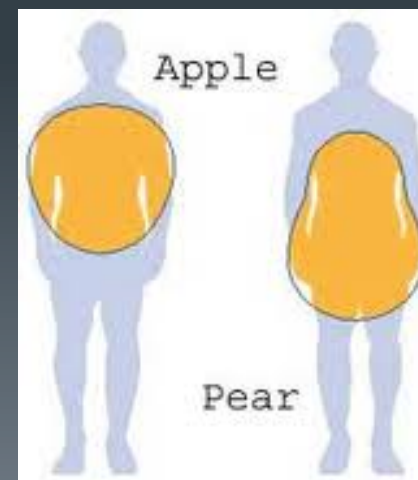
Excess Body Fat and Wellness

- As rates of overweight and obesity increase, so do the problems associated with them
- Obesity reduces life expectancy by 10-12 years
- Scientists believe that the average American life expectancy will soon decline by 5 years
- Excess body fat and wellness:
 - Metabolic syndrome, diabetes
 - Body fat distribution and health
 - Performance of Physical Activity
 - Emotional Wellness and Self-Image

Body Fat Distribution

12

- Distribution of body fat is an important indicator of health
- There are two recognizable shapes
 - Apple (fat stored in the abdominal region)
 - Pear (fat stored in the hips, thighs, buttocks)
- Excessive fat in the abdominal region increases the risk of many diseases such as:
 - Diabetes
 - Heart disease
 - Stroke
 - Certain cancers
 - Early mortality



Calculating Body Mass Index

13

- Body Mass Index (BMI) is a measure that can classify risks, based on the concept that a person's weight should be proportional to height
- To determine this, body weight in kilograms is divided by the square of height in meters
- Elevated BMI is linked to increased risk of disease, especially if associated with a large waist circumference



Body Mass Index Classifications

Table 6.1

Classifications from the
World Health Organization

Body Mass Index (BMI) Classifications

WEIGHT STATUS CLASSIFICATION	BODY MASS INDEX
Underweight	<18.5
Severe thinness	<16.0
Moderate thinness	16.0–16.9
Mild thinness	17.0–18.4
Normal	18.5–24.9
Overweight	25.0–29.9
Obese, Class I	30.0–34.9
Obese, Class II	35.0–39.9
Obese, Class III	≥40.0

Waist Circumference Classifications

CLASSIFICATION	WAIST CIRCUMFERENCE IN INCHES (CENTIMETERS)	
	WOMEN	MEN
Normal	<32 in. (80 cm)	<37 in. (94 cm)
Increased	≥32 in. (80 cm)	≥37 in. (94 cm)
Substantially increased	≥35 in. (88 cm)	≥40 in. (102 cm)

SOURCE: Adapted from World Health Organization. 2000. *Obesity: Preventing and Managing the Global Epidemic. Report of a WHO Consultation*. Geneva: World Health Organization Technical Report Series 894: i–xii, 1.

BMI Chart



WEIGHT lbs	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	
kgs	45.5	47.7	50.0	52.3	54.5	56.8	59.1	61.4	63.6	65.9	68.2	70.5	72.7	75.0	77.3	79.5	81.8	84.1	86.4	88.6	90.9	93.2	95.5	97.7	
HEIGHT in/cm	Underweight					Healthy					Overweight					Obese					Extremely obese				
5'0" - 152.4	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
5'1" - 154.9	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	36	37	38	39	40	
5'2" - 157.4	18	19	20	21	22	22	23	24	25	26	27	28	29	30	31	32	33	33	34	35	36	37	38	39	
5'3" - 160.0	17	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	32	32	33	34	35	36	37	38	
5'4" - 162.5	17	18	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	31	32	33	34	35	36	37	
5'5" - 165.1	16	17	18	19	20	20	21	22	23	24	25	25	26	27	28	29	30	30	31	32	33	34	35	35	
5'6" - 167.6	16	17	17	18	19	20	21	21	22	23	24	25	25	26	27	28	29	29	30	31	32	33	34	34	
5'7" - 170.1	15	16	17	18	18	19	20	21	22	22	23	24	25	25	26	27	28	29	29	30	31	32	33	33	
5'8" - 172.7	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	32	32	
5'9" - 175.2	14	15	16	17	17	18	19	20	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31	
5'10" - 177.8	14	15	15	16	17	18	18	19	20	20	21	22	23	23	24	25	25	26	27	28	28	29	30	30	
5'11" - 180.3	14	14	15	16	16	17	18	18	19	20	21	21	22	23	23	24	25	25	26	27	28	28	29	30	
6'0" - 182.8	13	14	14	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28	29	
6'1" - 185.4	13	13	14	15	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28	
6'2" - 187.9	12	13	14	14	15	16	16	17	18	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	
6'3" - 190.5	12	13	13	14	15	15	16	16	17	18	18	19	20	20	21	21	22	23	23	24	25	25	26	26	
6'4" - 193.0	12	12	13	14	14	15	15	16	17	17	18	18	19	20	20	21	22	22	23	23	24	25	25	26	

Assessing Body Fat Distribution

16

- Two of the simplest forms to assess body fat distribution are:
 - Waist circumference
 - Waist-to-hip ratios
 - Disease risk increases with total waist measurement of more than
 - 40 inches for men
 - 35 inches for women



Estimating Percent Body Fat

17

- There are many indirect methods that can provide an estimate of percent body fat
- Techniques include:
 - Underwater weighing
 - Skinfold caliper measurements
 - Bod Pod
 - Bioelectrical Impedance Analysis (BIA)
 - DEXA (Dual energy X-ray absorptiometry)
 - TOBEC (Total body electrical conductivity)



Percentage of Body Fat as the Criterion for Obesity

Table 6.2

Percentage of Body Fat
as the Criterion for Obesity

CATEGORY	PERCENT BODY FAT	
	MALES	FEMALES
Normal	12–20%	20–30%
Borderline	21–25%	31–33%
Obese	>25%	>33%

SOURCE: Bray, G. A. 2003. *Contemporary Diagnosis and Management of Obesity and the Metabolic Syndrome*, 3rd ed. Newton, Pa.: Handbooks in Health Care.

In order to lose one pound of fat, you will have to cut 3,500 calories from your typical diet.



Getting started with healthy weight loss

- Think lifestyle change, not short-term diet
- Find some personal 'fans' to cheer you on
- Aim to lose 1 to 2 pounds per week – nice and slow is the key
- Set goals – specific & measurable
- Use tools that help you track your progress
- Get a clear understanding of current situation

Research Revelations

- Eat a healthy breakfast daily
- Maintain a low-calorie, low-fat diet
- Weigh in at least once a week
- Move as much as possible
- Exercise about 1 hour each day on average
- Don't skip meals
- Eat healthy snacks
- Keep a journal/track your progress

Self Revelations

- You have to realize that change is necessary
- You have to want to change
- You have to make weight loss and lifestyle change a priority
- Be willing to conduct a critical self-evaluation of your habits (food intake, activity level, etc.)

Making Changes in Body Composition

- ◆ Lifestyle should be your focus – NOT weight loss
- ◆ Include the following as part of a regular program:
 1. Regular physical activity (daily chores)
 2. Endurance exercise (scheduled, planned, intentional)
 3. Strength training (“ ”)
 4. Moderate energy intake

Conclusions

- This society has severe problems that must be faced
- It is a problem that personally affects us
- We must be willing to be part of the solution, personally OR for others
- We must be willing to talk about it
- We must be willing to recognize that we have a problem
- We must be willing to change
- You have to plan ahead – every day!

Personal Trainers

- Motivation
- Weight loss
- Individualized program
- Efficiency
- Improve technical skill
- When you are new to exercise
- Break through plateaus
- Learn how to go it alone
- Workout safely

Finally

- There is no magic pill
- Weight loss attempts should be a lifestyle change to be maintained for the rest of your life
- Seek professional guidance for great success
- Every person can do it
- Don't delay – do it now – start today!

You are not alone!

- “I can do all things through Christ who strengthens me – “
- Phillipians 4:13