

I. Concepts of Obesity (30%)

A. Age Factors

1. Child and Adolescent Obesity

- a. Genetic
- b. Behavioral/Environmental
- c. Risk Factors
- d. Prevention
- e. Co-morbidities
- f. Treatment
 - i. Dietary recommendations
 - ii. Pharmacology
 - iii. 2007 Expert Committee Recommendations

2. Adult Obesity

3. Elderly Issues

B. Nutrition

1. Macronutrients

- a. Protein
- b. Carbohydrate
- c. Fats and Oils
- d. Calories/Gram of Macronutrient
- e. Glycemic Index/Glycemic Load

2. Vitamins

3. Electrolytes, Minerals, and Water

4. Fiber

5. Trace Minerals

6. Nutritional Values

7. Nutrient Absorption

8. Vegetarian Issues

C. Related Factors

1. Genetics

2. Endocrinology Factors

- a. BMI Grading
- b. Cortisol
- c. Cushing Syndrome
- d. Diabetes
- e. Growth Hormone
- f. Hypothyroidism
- g. Metabolic Syndrome
- h. Polycystic Ovarian Syndrome
- i. Sex Hormones
- j. Neuroendocrine

3. Pharmacologic Causes

4. Psychological Disorders

- a. ADHD

- b. Borderline Personality Disorder
 - c. Body Dysmorphic Syndrome
 - 5. Eating Disorders
 - a. Anorexia Nervosa
 - b. Bullimia Nervosa
 - c. Binge Eating Disorder
 - d. Night Eating Syndrome
 - e. General Eating Disorders
 - 6. Mood Disorders
 - a. Depressive Episode
 - b. Manic Episode
 - c. Hypomanic Episode
 - d. Major Depressive Disorder
 - e. Dysthymia
 - f. Bipolar 1
 - g. Bipolar 2
 - h. Cyclothymia
 - 7. Anxiety Disorders
 - a. General Anxiety Disorder
 - b. Obsessive Compulsive Disorder
 - c. Post Traumatic Stress Disorder
 - d. Panic Attacks
 - e. Panic Disorder
 - f. Acute Stress Disorder
 - 8. Physical Activity
 - 9. Diet
 - 10. Cultural and Ethnic Issues
 - 11. Psycho-social Environment
- D. Health Consequences
 - 1. Sleep Apnea
 - 2. Heart Disease
 - 3. Coronary Artery Disease
 - 4. Stroke
 - 5. Pulmonary Dysfunction
 - 6. Adiposopathy
 - 7. Gallbladder Disease
 - 8. Alzheimer's Disease
 - 9. Diabetes
 - 10. Hypertension
 - 11. Fatty Liver Disease
 - 12. Metabolic Syndrome
 - 13. Endocrine Dysfunction
- E. Medications Affecting Weight Gain

II. Patient Examination (15%)

A. Assess Readiness to Change

B. Patient History

1. Health and Medical History
2. Weight and Dietary History
 - a. CDC Growth Charts
3. Surgical History
4. Family History
5. Mental Health History
6. Social History
7. Allergy History
8. Medication and Supplements Used
9. Exercise and Activity Level
10. Psychological Disorders
11. Systems Review

C. Physical Examination

1. General appearance
2. Height and Weight
3. Cardiovascular
4. BMI calculation
5. Classification of Weight
 - a. Classes in Adults
 - b. BMI Growth Charts
6. Measurements
 - a. Abdominal Circumference
 - b. Neck Circumference
 - c. Hip Circumference
7. Vital Signs
8. Neurological Functions
9. Range of Motion
10. Tanner Staging

D. Diagnostic Testing

1. Body Composition
2. Laboratory
 - a. Blood Chemistry
 - b. Blood Glucose Test
 - c. Metabolic Testing
 - d. Insulin Testing
 - e. Lipid Panel
 - f. CBC
 - g. Urinalysis
 - h. Vitamin Levels
3. Other Testing
 - a. EKG

- b. Stress Test
- c. Sleep Study
- d. Psychological
- e. Physical Fitness

III. Treatments - Nonsurgical (25%)

A. Weight Control Diets

1. Low Calorie

- a. Calorie Deficit to Lose Pounds
- b. Patient Education

2. Very Low Calorie

- a. Patient needs
- b. Medical changes
- c. In Diabetics
- d. Contraindications
- e. Complications
- f. Nutrient Needs
- g. Indications

3. Ketogenic

4. Low Fat

5. American Heart Association Therapeutic Lifestyle Changes

6. Balance Deficit Diet

B. Physical Activity and Exercise

1. Benefits

2. Types

3. Risks

4. Role in Weight Loss

5. Physiologic Changes

- a. Microscopic
- b. Macroscopic

6. Muscles

- a. Types
- b. Structure
- c. Fuel Source for Skeleton

C. Behavior Modification/Techniques

1. Interpersonal Therapy

2. Behavioral Therapy

3. Cognitive Therapy

4. Cognitive Behavioral Therapy

5. Motivational Interviewing

D. Pharmacology

1. Antidepressants

2. Anti-psychotics

3. Blood Pressure Medications

4. Diabetic Medication
5. Non-Stimulants
6. Controlled substances for weight loss

IV. Treatments – Surgical (15%)

A. Bariatric Procedures

1. Historical Procedures
 - a. Vertical Banded Gastroplasty
2. Current Procedures
 - a. RouxpenpY (RNY) Gastric Bypass
 - b. Adjustable Gastric Band
 - c. Sleeve gastrectomy
 - d. Biliopancreatic Diversion (BDP) Gastric Bypass

B. Risk Factors

1. Contraindications

C. Indications for Surgery

D. Pre-operative Preparations

E. Complications

1. Insufficient Weight Loss
2. Vitamin Deficiency
3. Mineral Deficiency
4. Dumping Syndrome
5. Internal Hernia
6. Malabsorption
7. Anastomotic Leaks
8. Anastomotic Ulcer
9. Hepatobiliary Factors
10. Gastric Band Complications
11. Roux-en-Y (RNY) Complications
12. Weight Re-Gain

F. Post Surgery

1. Follow-up
2. Diet Recommendations

V. Patient Management Issues (15%)

A. Initial

1. Written consents
2. Referrals
3. Eating and Activity Plans
4. Goal Setting
5. Patient Education
 - a. Complications of Obesity
 - b. Eating Habits
 - c. Exercise

- d. Behavioral Modification
 - e. Vitamins, Minerals, and Hormone Balance
 - 6. Group Sessions
 - a. Group Therapy
 - b. Group Education
 - 7. Diaries
 - a. Food Diary
 - b. Exercise Diary
 - 8. Follow-up Schedules
- B. Long Term/Maintenance
 - 1. Re-assess Goals
 - 2. Changes in Behavior
 - 3. Medications
- C. Medical/Legal Issues
 - 1. Regulatory
 - a. HIPAA
 - b. OSHA
 - c. Americans with Disabilities Act
 - 2. Bariatric Laws and Regulations
 - 3. Insurance Compliance
 - 4. Public Health