

Pharmacologic Weight Loss Treatment

- Appetite Suppressants
- Nutrient absorption inhibitors
- Energy expenditure stimulants

Appetite suppressants

- Affect neurotransmitter activity
 - Serotonin
 - Norepinephrine
- Require chronic intake
- Side effects
 - Primary Pulmonary Hypertension
 - Valvular Heart Disease
- Average patient loses 8-10% of initial body weight

Inhibitors of nutrient absorption

- Lipase inhibitor - Orlistat
 - Up to 30% of the fat in a meal is not absorbed
 - Average patient loses 10% of initial body weight

Energy expenditure stimulants

- Amphetamines
- Ephedrine

- act on α_3 adrenergic receptors to increase catabolic reactions

Weight loss Maintenance

Factors affecting energy requirements

- Decreased body weight
- Decreased lean body mass
- Reduced ability to oxidize fat?

Weight maintenance requires permanent changes in lifestyle

- Diet
- Exercise

The Cold Foods Diet

Case 993: Ruth

- “overweight all her life”
- Failure to regain prepregnancy weight

Family History

Diabetes- mother

Obesity -Mother and Father

Hypertension- Father

Social History

- Occupation at home caring for child
- Exercise-sedentary
- married
- Education - high school

- recent move to new home isolated from family and friends
- Beer 3-4/week
- Caffeine-coffee, soda - 2/day

Diet History- 24 Hour recall

2717 Kcal

Anthropometrics

- Weight -170 pounds
- Height- 5'4"
- BMR ~30

Weight History

Calculation of Ideal Body Weight

BMI: 19-24 is acceptable, 19-22 is better

106-139 pounds, 106-128 is better

Quick formula for Women :

100 lbs. for the first 5 feet of height and then 5 lbs. for each additional inch, + or -

10%,

so... for Ruth:

$$100 + (5 \times 4) = 120 \pm 12$$

108-132 pounds

Calculation of Energy Needs

- Adjusted Body Weight:

$$- [(170-120) \times 25\%] + 120 = 132.5 \text{ pounds } 132.5 \text{ pounds } = 60.2 \text{ kg}$$

- REE:

$$- 655 + [9.7 \times 60.2] + [5.0 \times 162] - [4.7 \times 22] = \text{kcal/day}$$

$$- 1428 \text{ kcal/day}$$

Energy expenditure = REE x activity factor

Comparison to Food Pyramid

Treatment

- Diet and Exercise
- Is Ruth motivated to make changes?
- Recognize and discuss barriers to change
- Develop a treatment plan with appropriate goals

Food Pyramid Servings

Slimfast

Infants and Children

Growth

- Periods of rapid growth
 - Infancy
 - Adolescence

Brain Growth

- 70% in the first three years of life
- 90% by age 7

Assessing dietary adequacy in children

- Accurate anthropometric measurements
- Longitudinal charting

Weight History

Infants: Birth to 4-6 months

Milk based food is primary nutritional source

Breast Milk

- Composition ideally suited to infant's needs
- Immunological factors are present
- Adjustable volume
- Hypoallergenic
- Lower incidence of GI infections and otitis media?
- Fortification may be necessary for premature infants

Formula

- Composition mimics breast milk
- Cow's milk or soy based
- Proteins are heat treated for digestion
- Parental education to avoid overfeeding and nursing bottle syndrome
- In some cases, may be the best feeding option

Cow's milk

- Never appropriate for infant's under 6 month's of age
- Not recommended for infant's under 1 year
- Untreated casein difficult to digest
- High renal solute load
- GI blood loss

How much?

- 4-6 wet diapers a day
- Appropriate growth rate
- Let infant indicate satiety