# OBESITY

## DEFINITION

Obesity is defined as a body mass index (BMI) of at least 30, where BMI is defined as the weight in kg/height in meters squared or kg/m². Obesity has reached epidemic proportions in the US, where over one third of the adult population is obese. Obesity is associated with serious health consequences including cardiovascular disease, stroke, diabetes, infertility and endometrial cancer. Obesity is also associated with depression and sleep disorders. Obesity is responsible for more than 100,000 deaths in the US each year and accounts for 9.4% of all US health care costs. It has been estimated that by 2030 there will be 65 million obese people in the US.

## SUBJECTIVE

Must include:

1. Medical history with special attention to:
   a. Anemia.
   b. Personal and family history of:
      1) Weight disorders.
      2) Heart disease.
      3) Stroke.
      4) Hypertension.
      5) Hyperlipidemia.
      6) Diabetes mellitus or gestational diabetes.
      7) Sleep apnea or other sleep disorders.
      8) Depression.
   c. Description of weight and weight changes over time.
2. Diet history, including weight loss surgeries.
3. 24-hour recall with particular attention to site of eating (home or eating out) and snacking.
4. History of possible eating disorders.
5. Level of activity and exercise. History of conditions that might limit activities (e.g., arthritis, asthma, COPD).
6. Menstrual history (anovulatory cycling, heavy bleeding, intermenstrual bleeding).

## OBJECTIVE

Must include:

1. BMI \( \geq 30 \text{ kg/m}^2 \).
2. BP.

May include:

1. Waist circumference (narrowest circumference of trunk).
2. Hip circumference (largest circumference around buttocks).

## LABORATORY

May include:

1. Diabetes screen.
2. Lipid panel.
3. CBC.
4. TSH.

## ASSESSMENT

Obesity.

## PLAN

1. Provide supportive counseling and introductory information for those who are above ideal body weight.
2. Counsel patient that obesity is a chronic medical condition and will require significant and permanent lifestyle changes.
3. Provide patient with written information.
   a. Self-directed Weight Loss Program.
   b. MyPlate diet recommendations.
4. Calculate appropriate caloric intake for weight loss given patient’s height and medical conditions, if possible.
**PLAN (Continued)**

5. Provide referral sources.
6. Suggest behavior modification tips.
7. Suggest sample diet(s). Recognize that any nutritionally safe diet may be appropriate. The best diet is the one the patient will follow in the long run.
8. Refer to other nutritional resources, as indicated.
9. Encourage regular physical activity.
10. Provide endometrial protection, especially if patient has anovulatory cycling.
11. Offer testing for metabolic syndrome.
12. Recognize that healthy food may be more expensive. Help patient identify resources in community that may help her and her family.

**PATIENT EDUCATION**

1. Encourage slow, steady weight loss. Advise patient that even modest weight loss (10-15% of current weight) might cause return of normal menses.
2. Encourage increased physical activity to increase caloric utilization, to prevent rebound weight gain, to improve physical function, strength and balance, and to preserve bone mineralization. Recognize that many neighborhoods do not have areas safe for outside activity. Help identify resources in patient’s community for safe exercise and tailor your recommendations to her realities.
3. Advise patient about long term consequences of obesity, such as increased risk for diabetes, heart disease, breast and uterine cancer, arthritis, poor wound healing, sleep disorders and infertility in women.
4. Warn patient about the dangers of energy-dense snack foods, sodas and other sweetened beverages. Advise food consumption only at meals and reinforce need for breakfast and lunch, in particular. Dinner should be the smallest meal of the day. Recommend avoidance of fast food restaurants.
5. The MyPlate federal recommendations are helpful. They recommend that people eat a variety of foods, including foods from each of the food groups (grains, protein, dairy, and fruits and vegetables) with small portions. Recommend that patient eat mostly foods of plant origin and limit red meat and processed meat, alcohol drinks and salt intake.
6. Recommend sleep hygiene. Explain that impaired sleep continuity increases the risk of transition to obesity and reduces the chance for weight loss.
7. Advise obese women over age 35 that they may be at significantly higher risk of suffering serious blood clots when they get pregnant or use estrogen-containing hormonal contraceptives.

**REFER to MD/ER**

Patients with medical problems related to their current weight, or patients with problems associated with weight loss.

**REFERENCES**

9. Moore LV, Diez Roux AV, Nettleton JA, Jacobs DR, Franco M. Fast-food consumption, diet...
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