PHC

432 Team

24 Approach to obese patient

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Objectives

1. Define obesity and classify the degree of obesity (BMI, Waist circum. And Waist to Hip ratio)
2. Highlight the prevalence of obesity in Saudi Arabia
3. Discuss how to prevent obesity in the community
4. Discuss the common causes of obesity in the community
5. Morbidity “common health problems due to obesity”
6. Discuss the evidence based approach to decrease weight (Exercise, Dieting, Drug treatment, and Bariatric Surgical Intervention like gastric banding, Sleeve gastrectomy and gastric bypass.
7. Role of health team, medical students, and school health in dealing with obesity in the community

Definition:

Simply, obesity is a complex disorder involving an excessive amount of body fat ☺

Classification BMI (weight in kg ÷ (height in m)^2) :

- 18.5–24.9 Healthy weight
- 25–29.9 Overweight
- 30–34.9 Obesity I
- 35–39.9 Obesity II
- >40 Obesity III (Morbid obesity)

Waist circumference

See Table 8.5. Alternative measure of body fat correlated with CHD risk, DM, hyperlipidaemia, and i BP. Measured halfway between the superior iliac crest and the rib cage. Use in addition to BMI to aid assessment of health risks.

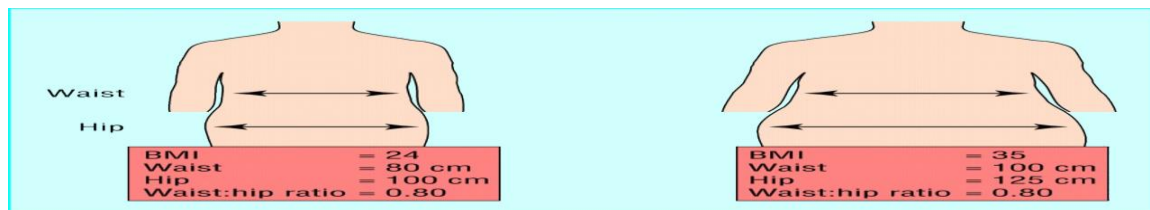
Table 8.5 Waist circumference with excess risk (RR ≥3) of CHD and DM

Waist circumference	White Caucasians	Asians
Male	≥102cm (40 inches)	≥90cm (36 inches)
Female	≥88cm (35 inches)	≥80cm (32 inches)

! For every 1cm ↑ in waist circumference, the RR of a CVD event ↑ by ~72%.

Waist to Hip ratio

This is calculated as waist measurement divided by hip measurement (W/H). For example, a person with a 25" waist and 38" hips has a waist-hip ratio of about 0.66.



	acceptable		unacceptable		
	excellent	good	average	high	extreme
male	< 0.85	0.85 - 0.90	0.90 - 0.95	0.95 - 1.00	> 1.00
female	< 0.75	0.75 - 0.80	0.80 - 0.85	0.85 - 0.90	> 0.90

Prevalence of obesity in Saudi Arabia

Based on the National Nutrition Survey of 2007, the prevalence of obesity in the KSA was 23.6% in women and 14% in men. The prevalence of overweight in the community was determined to be 30.7% for men as compared to 28.4% for the women. Similarly, the Coronary Artery Disease in Saudis Study (CADISS) of 2005 estimated an overall obesity prevalence of 35.5% in the Kingdom: in other words one in every three people in the country is obese.

Obesity Research Center , King Saud University

How can we prevent obesity in our community?

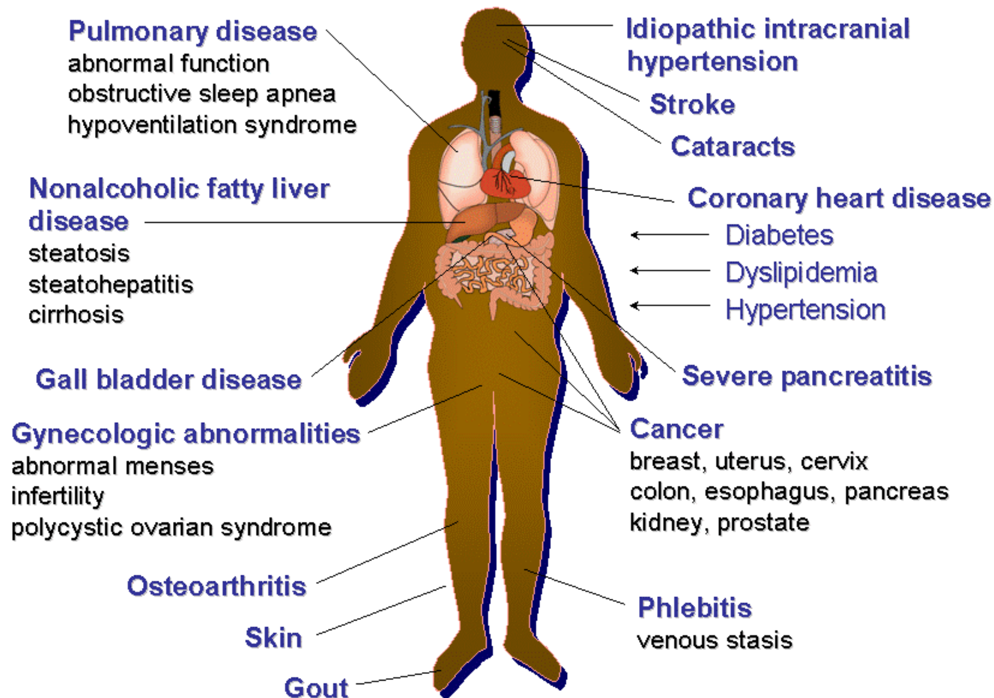
1. **Education**
2. **Improve social physical activity**
3. **Enhance Healthy Food**

Causes

- Physical inactivity
- Cultural factors
- Smoking cessation—mean weight increasing 3–4kg
- Low education
- Polygenic genetic predisposition—71 in 3 obese people—more prone to obesity again after successful dieting
- Childbirth—especially if not breastfeeding
- Drugs—steroids, antipsychotics (e.g. olanzapine), contraceptives (especially depo-injections), sulfonylureas, insulin antipsychotics(like thioridazine, clozapine and olanzapine)
- Antidepressants : Tricyclic antidepressants
- Antiepileptic drugs valproate (valproic acid)
- Endocrine causes (rare)—hypothyroidism, Cushing's syndrome, PCOS— only investigate if there are other symptoms/signs of endocrine disease
- Ongoing binge eating disorder

Table 1. Causes of Obesity

Excessive/inappropriate food intake
Sedentary lifestyle
Genetic disorders with obesity
Prader-Willi syndrome
Bardet-Biedl syndrome
Carpenter's syndrome (acrocephalopolysyndactyly type II)
Cohen syndrome
Endocrine disorders
Cushing's syndrome
Hypothalamic tumors/inflammation/trauma
Hypothyroidism
Polycystic ovary syndrome
Insulinoma
Drugs
Antipsychotics, especially atypical agents
Tricyclic antidepressants
Sulfonylureas
Insulin
β Blockers
Corticosteroids
Estrogen
Progestins



What are the common health problems that may develop?

Skin changes:

1. **Stretch marks** (striae). are common and reflect the tension on the skin from expanding subcutaneous deposits of fat.
2. Acanthosis nigricans (hyper pig.).
3. Hirsutism

Prevention Begins in childhood with healthy patterns of exercise/diet.

Primary prevention means preventing the illness before it happens

Primary prevention efforts include focusing on healthy lifestyle behaviors related to maintaining a normal weight.

Methods of preventing obesity are:

1-Practicing good nutrition and having regular physical activity

2-Educating community about how to avoid overweight and obesity

Secondary prevention

Efforts aimed at individuals who are already overweight in order to prevent them from becoming obese by two ways:

1-Diet therapy.

2-Increased Physical Activity.

Tertiary prevention

1- Slow down or reverse the increase in BMI.

2- Prevent the complications of overweight.

How could have prevented this problem?

1-Exercise regularly:

You need to get 150 to 250 minutes of moderate-intensity activity a week to prevent weight gain.

2-Eat healthy meals

Focus on	Avoid
Low-calorie, nutrient-dense foods, such as fruits, vegetables and whole grains.	Saturated fat, alcohol and limit sweets.

Management:

When the body's intake > output over a period of time, obesity results. Management aims to reverse this trend on a long-term basis through healthy diet, adjustment of calorie intake, physical exercise, and psychological support.

- Initial assessment Assess willingness to change, eating behavior and diet, physical activity, psychological distress, and social and family factors affecting diet. Check a baseline BMI and waist circumference. Check BP, blood glucose, and fasting lipid profile.

- Advice Whether willing to change or not, provide advice on risks of obesity, and benefits of healthy eating and physical exercise. Tailor your advice to the individual. If unwilling to change, reinforce this information at each encounter with the patient.

- Diet Advise a weight loss diet for any patient who is overweight/obese and willing to change:

  1. All obese people lose weight on a low-energy intake. Aim for weight loss of 1–2lb (0.5– 1kg)/wk using a decrease in calorie intake of 7600kcal/d with a target BMI of 25, in steps of 5–10% of original weight. There is no health benefit of weight decreasing below this. If simple diet sheets are not effective, refer to a dietician.

  2. Very low calorie diets (<1,000kcal/d). Only limited place in management—use for a maximum of 12 wk for obese patients when weight loss has plateaued

THE 5As APPROACH TO WEIGHT MANAGEMENT
ASK AND ASSESS—current lifestyle behaviours and body mass index, comorbidities and other factors related to health risk
ADVISE—promote the benefits of a healthy lifestyle and explain the benefits of weight management
ASSIST—develop a weight management program that includes lifestyle interventions tailored to the individual (e.g. based on severity of obesity, risk factors, comorbidities), and plan for review and monitoring
ARRANGE—regular follow-up visits, referral as required (e.g. to a dietitian, exercise physiologist or psychologist) and support for long-term weight management

Drug therapy *BNF 4.5.1.*

Orlistat: It acts by d fat absorption.

Consider if a 3 months trial of supervised diet/exercise has failed and BMI ≥30kg/m^2 *or* ≥27kg/m^2 + co-morbidity (e.g. DM, i BP). Continue treatment >3mo only if weight loss is ≥5% of initial body weight.

Drug	Action	Side Effects
Diethylpropion (Tenuate)	Decreases appetite, increases feeling of fullness	Increased blood pressure and heart rate, insomnia, dizziness
Lorcaserin (Belviq)	Decreases appetite, increases feeling of fullness	Headache, dizziness, fatigue, nausea, dry mouth, constipation
Phentermine (Adipex)	Decreases appetite, increases feeling of fullness	Increased blood pressure and heart rate, insomnia, dizziness
Orlistat (Xenical)	Blocks absorption of fat	Intestinal cramps, gas, diarrhea, oily spotting
Phentermine and extended-release topiramate (Qsymia)	Decreases appetite, increases feeling of fullness	Increased heart rate, birth defects, tingling of hands and feet, insomnia, dizziness, constipation, dry mouth

Surgery **Consider** if BMI >40kg/m^2 and non-surgical measures have failed. Adjustable gastric banding is the most common procedure. *Complications:* band slippage/damage; gastric erosion, pouch dilatation; infection; malabsorption.

For adults with BMI > 40 kg/m^2 or adults with BMI > 35 kg/m^2 and comorbidities that may improve with weight loss, bariatric surgery may be considered, taking into account the individual situation.

Group and behavioral therapy group activities, e.g. Weight Watchers, have a higher success rates in producing/maintaining weight decrease. Behavioral therapy together with low calorie diets is also effective.

What's the role of medical students and health team in the community?

Health team

- Health professionals have an important role in promoting preventive measures and encouraging positive lifestyle Behaviors.
- Also have a role in counseling patients about safe and effective weight loss and weight maintenance programs.

Role of schools:

- health education
- physical education
- health services
- nutrition services
- staff health promotion
- health educations for family

ASSESSING WEIGHT HISTORY

Age of onset of overweight or obesity?

Family history of obesity?

Any history of eating disorders, symptoms of eating disorders (e.g. binge eating) or unhealthy weight loss methods (e.g. misuse of laxatives, self-induced vomiting)?

Is weight stable and for how long has the person been this present weight?

What have been the maximum and minimum weights?

What attempts at weight loss have been made in the past? Have any worked?

If not, why does the person think they were unsuccessful?

If so, what attempts were made to maintain the new lower weight? Did these work and for how long?

What is the person's understanding of the reasons or triggers for weight gain/regain?

Has weight loss medication been tried?

Has the person had weight loss surgery?

Has the person seen other professionals or organisations for weight loss?

How can we approach an obese child?

- For children and adolescents focus lifestyle programs on parents.
- Weight loss is not recommended for most of children, as weight maintenance during growth will allow a gradual decline in BMI.
- Weight management in children and adolescents focuses on changes in health behaviors that influence weight, dietary behavior and physical activity.
- Lifestyle intervention is the first line of weight management in children and adolescents such as dietary modifications, physical activity and family behavioral intervention.
- For sever obesity and associated co-morbidities in post pubertal adolescents intensive interventions may be required such as very low-energy diet, orlistat, metformin or surgery (LAGB).

10 Rules for Obesity Management in Primary Care

1. DO NOT BLAME, THREATEN, OR PRESSURE YOUR PATIENT!
2. DO NOT SUGGEST OR ENCOURAGE RIDICULOUSLY UNREALISTIC WEIGHT -LOSS TARGETS! (for most patients 5-10% weight loss is realistic, but even that is incredibly hard to keep off).
3. DO educate your patient on the risks of overweight and obesity and that obesity once established is a chronic condition (any treatment that works is essentially lifelong!).
4. DO encourage your patient to eat regularly (especially breakfast!) and keep a food diary. (For most people, the key to not gaining weight is to not get hungry). For emotional/binge eaters it also helps to record the emotions associated with "emotional" eating.
5. DO encourage your patient to develop some understanding and knowledge of caloric content of foods and drink.
6. DO recommend reducing "liquid calories"
7. DO recommend at least 30-60 min of daily physical activity; use a pedometer and record steps in food diary
8. DO offer regular "weigh-ins" (at least once a month)
9. DO NOT stop the above when patient stops losing weight – preventing weight regain needs more effort (AND SUPPORT) than weight loss!
10. DO treat recidivism for what it is – a natural and expected phenomenon of a chronic disease – GO TO step 3

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Summary

- **BMI, Waist Circumference and Waist to Hip Ratio can all be used to identify and classify obesity.**
- **The local studies suggest an increase in the prevalence of obesity.**
- **Diet, Life Style, Neuroendocrine diseases, Drugs, Psychological influences, Genetics, Socioeconomics and some Infections can lead to obesity.**
- **Diabetes, Hypertension, Dyslipidemia, Gout, Heart Diseases, Stroke, Sleep apnea and specific Skin Changes are well known complications of obesity.**
- **Obesity should be managed initially with diet and life style modification followed by pharmacotherapy and surgery as a last option.**

Questions

1) For most people, the best type of diet for losing weight is?

A. Choosing sensibly from the five major food groups, with an emphasis on whole grains, fruits and vegetables, accompanied by an effort to moderate fat intake and reduce sugar intake.

B. The newest thing to come down the pike, whether it's all protein or eight grapefruits a day

C. A Crash diet

D. Fasting

2) What causes obesity?

A. Heredity

B. Poor eating habits

C. Lack of physical activity

D. All of the above

3) Which one of the following BMIs is considered to be obese?

A. ≥ 25
B. ≥ 30
C. ≥ 18
D. ≥ 29

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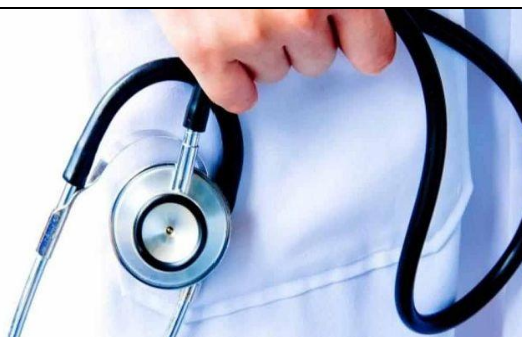

Answers:

1st Question: A

2nd Question: D

3rd Question: B