

# *Introduction to Public Health*

## *Module # 19*

*Obesity and it's prevention*

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# *OBJECTIVES OF THE LECTURE*

***By the end of this lecture you will be able to:***

- *Conceptualize*
  - *The over nutrition*
  - *the impacts of obesity.*
  - *Obesity & its causes and prevention*
- *Understand the various steps that can be taken to measure the obesity such as BMI or QI etc.*

# Obesity

- An abnormal growth of adipose tissue due to an enlargement of fat cell size ( Hypertrophic) or an increase fat cell number( Hyperplastic) or a combination of both
- Major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases and cancer
- Once considered a problem only in high income countries, now dramatically on the rise in LMIC, particularly in urban settings

# *Causes of obesity*



1. Genetic factor
2. Age
3. Sex
4. Socioeconomic factor
5. Physical inactivity
6. Eating habit
7. Family tendency
8. Endocrine factor
9. Drugs ,alcohol
10. Education
11. Ethnicity

# *How to measure obesity and overweight*



1. Skinfold thickness
2. Waist circumference
3. WHR
4. Broca's index
5. BMI or QI
6. Measuring fat cell



# *Preventing obesity*



- Follow a healthy eating plan- balance of energy IN and energy OUT
- Focus on portion size
- Be active- walk, bike or physical exercise
- Reduce screen time- use of TVs, computers, DVDs, and videogames because they limit time for physical activity
- Keep track of your weight, body mass index, and waist circumference

# *Calculate Your Body Mass Index (BMI)*

- A common method of evaluating your weight
- $BMI = \text{body weight (in Kg)} / \text{height (m)}^2$



## *BMI Intervals*

- Under weight
  - Normal weight
  - Overweight
  - Obese
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- Less than 18.5
  - 18.5-24.9
  - 25-29.9
  - 30 and above

# *RDA#Recommonded Dietary Allowence*



- Carbohydrate = 50% - 65%
- Protein = 15%-20%
- Fat = 25%-30%
- Dietary Fiber = 25 -40 gram/ day Approx.
- Fresh vegetables+ fresh Fruits = Plenty if calorie free or zero kcal.
- Table salt = Less than 5 gm/day
- Water = for one kcal one ml of water plus daily loss.

# *Complications of Obesity*



1. Clinical and Medical
2. Mechanical
3. Psychological

# *Management of obesity*



1. Health education
2. Diet control
3. Exercise
4. Treatment
5. Lifestyle changes/ Changes of attitude and behaviour