# OBESITY

# DEFINITION

- Obesity is that physical state in which the amount of fat stored in the body is excessive

# BMI

- Clinical obesity is represented by body mass index.
- BMI is calculated as the weight(in kg) divided by the height (in meters$^2$)
- $BMI = {}^{Weight(kg)}/_{Height(m^2)}$

# Healthy reference range for BMI is between 18.5 to 24.5kg/m square

- Grade 1 obesity or overweight BMI  25 to30kg/m
- Grade 2 or clinical obesity BMI greater then 30kg/m
- Grade 3 or morbid obesity  BMI  greater than 40kg/m

# IMPORTANCE OF OBESITY
## Obese persons are more than average population to certain diseases

- Diabetes mellitus type 2
- Cardiovascular disorders
- Liver diseases
- Physical consequences of too much fat
- Metabolic diseases like gout
- Skin disorders

# Gynaecological disorders
# Surgical post operative complications

- Industrial house hold and street accidents

# TYPES OF OBESITY

- Exogenous obesity
- Endogenous obesity
- Pathologically types of obesity are
- Hyperpastic type
- Hypertrophic type

# CAUSES OF OBESITY

- Genetic  influences
- Physiological
- Metabolic
- Hypothalamic injuries
- Miscellaneous and endocrine disorders

# PATHOGENESIS

- Age
- Sex
- Genetic factor
- Psychological factors
- Hypothalamic factors
- Epidemic encephalitis

# Endocrine factors

- Frohlich,s syndrome
- Cushing syndrome
- Organic hypoglycemia
- In pregnancy
- Hypothroidism
- Hypogonadism

# METABOLIC CHANGES IN OBESITY

- 1  Changes in fat metabolism
- Serum triglyceride level
- Serum cholesterol level
- Mobilisation of FFA
- Lipoprotien lipase activity

# CHANGES IN CARBOHYDRATE METABOLISM
# CHANGES IN ACID BASE STATUS

- Clinical features
- Symptoms
- Signs
- HARMONES OF ADIPOSE TISSUE
- Two peptide harmones are produced by adipose tissue
- 1 Leptin
- 2 Adiponectin