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Obesity Overview

The World Health Organization, (WHO) has identified Obesity as one of the greatest public health challenges of the 21st century. Overweight and obesity are now linked to more deaths worldwide than underweight..

Obesity is fast becoming the a leading health concern in the US, with the following statistics

**39.8 % of adults
> 20 years of age with Obesity**

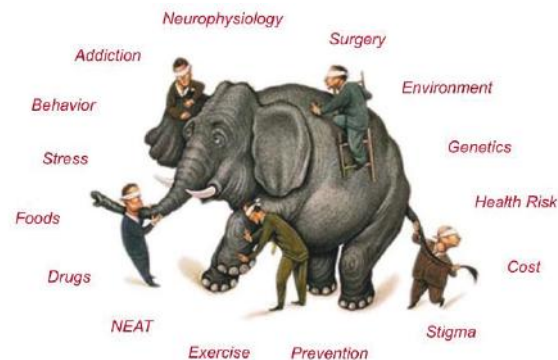
**70.7 % of adults
with Overweight and Obesity**

Obesity Rises ↑ Healthcare Cost Rises ↑

Obesity significantly increases a person's risk of developing numerous non-communicable diseases, including cardiovascular disease, cancer, diabetes, sleep disturbance, and other disabilities. The risk of developing more than one of these diseases also increases with excess body weight.

Why Obesity IS a disease

- It is associated with impaired body function
- Like other diseases, it results from physiological dysfunction
- Though frequently precipitated by environmental forces in modern society, the final common pathway of obesity reflects abnormal physiology
- It causes, exacerbates or accelerated more than 225 comorbid diseases
- It is associated with a substantial burden of morbidity and premature death



Metabolic	225+ Comorbidities affecting EVERY organ system and medical speciality
Structural	
Inflammatory	
Degenerative	
Neoplastic	
Physiological	

It is evident from multiple population studies that obesity, that an increase in adipose tissue or excess fat- leads to dysfunctional fat tissue resulting in hormonal (endocrine) and immune dysfunction- called **Adiposipathy or SICK FAT DISEASE**. It also results in pathogenic physical forces from excess body fat causing stress and damage to other body tissues, called **Adiposity or Fat Mass Disease**. As the obesity epidemic soars, it is important to note that most doctors do not have the clinical training to appropriately treat it. It is imperative to seek out a physician specifically trained in Obesity Medicine and certified by the American Board of Obesity Medicine, which is a specialty dedicated to the comprehensive care of patients with overweight and obesity.



Classification of Obesity

Obesity can be classified into three stages I, II, and III. This Classification is determined by a combination of BMI(Body Mass Index) Body Fat Percentage, and Waist Circumference.

BMI

The following BMI chart is measured in kilograms per meters squared (kg/m²)

NORMAL WEIGHT	OVER-WEIGHT	CLASS I OBESITY	CLASS II OBESITY	CLASS III OBE-SITY
18.5-24.9	25.0-29.9	30.0-34.9	35.0-39.9	≥40

Exceptions and Ethnic Variations for BMI

Different BMI cutoff points are more appropriate based upon ethnicity

ETHNICITY/ GEOGRAPHY	OVERWEIGHT	OBESITY
CHINA	23-24	>27-29
JAPAN	>24	>29
INDIA	>23	>27
SINGAPORE	>22	>27
LATIN AMERICA, CENTRAL & SOUTH AMERICAN	>23	>27

Body Fat Percentage

Men **>25 % Body Fat is Considered Obese**

Women **> 32 % Body Fat is Considered Obese**

ESSENTIAL FAT	ATHLETES	FITNESS	ACCEPTABLE	OBESITY
Women: 10-13% Men:2-5%	Women: 14-20% Men: 6-13%	Women: 21-24% Men: 14-17%	Women: 25-31% Men: 18-24%	Women: ≥32% Men: ≥25%

Waist Circumference/ Abdominal Obesity

Men \geq **40 Inches or 102 Centimeters**

Women \geq **35 Inches or 88 Centimeters**

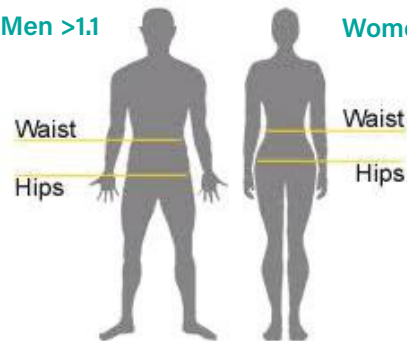
Abdominal Obesity cutoff points also vary based upon ethnicity

Abdominal Obesity in Men	Abdominal Obesity in Women
USA/Canada/Europe \geq 40 inches or 102 cm	USA/Canada/Europe \geq 35 inches or 88 cm
Middle East/Mediterranean Sub-Saharan Africa \geq 37 inches or 94 cm	Middle East/Mediterranean Sub-Saharan Africa \geq 31.5 inches or 80 cm
South Asians, Chinese, Japanese South & Central American \geq 35 inches or 90 cm	South Asians, Chinese, Japanese South & Central American \geq 31.5 inches or 80 cm

Waist to Hip Ratio (WHR)

Men >1.1

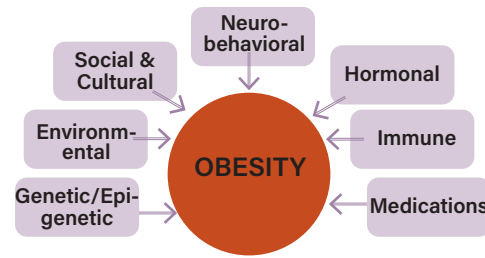
Women >0.8



Obesity <i>Is</i>	Obesity <i>is Not</i>
<ul style="list-style-type: none"> • A disease • A worldwide health concern • Caused by many factors • Treatable and manageable 	<ul style="list-style-type: none"> • Your fault • Yours to manage alone • Just about food • Cured by a miracle treatment

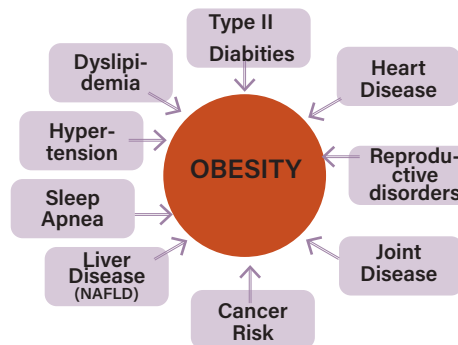
The causes of obesity are much more than simply overeating. It is a common misconception that obesity is due to lack of willpower or self-motivation. It is a chronic disease that needs to be prevented and managed, often requiring lifelong treatment. The causes of obesity are widespread and multifactorial.

Obesity can be caused by any one or a combination of the factors listed below:



Genetic

Obesity and Increased Risk of Chronic Metabolic Conditions.



Health Benefits of Treating Obesity

Even a moderate amount of weight loss can have significant health benefits.

CONDITION	AMOUNT OF WEIGHT LOSS NEEDED TO EFFECT IMPROVEMENT
TYPE 2 DIABETES	5-15% weight loss associated with lower A1C and reduce number and doses of medications
PREDIABETES & METABOLIC SYNDROME	10% weight loss to prevent type 2 Diabetes
DYSLIPIDEMIA	
HYPERTENSION	5-15% lowers systolic and diastolic blood pressure, reduces number and doses of antihypertensive medication
OBSTRUCTIVE SLEEP APNEA	10% weight loss required for significant improvement
KNEE PAIN AND FUNCTION	5-10% improves knee functionality, speed of walking
NON-ALCOHOLIC FATTY LIVER DISEASE	10-15% required for significant improvement
ASTHMA	7-8% required for significant improvement
PCOS	5% weight loss improves ovulatory cycles and subsequent pregnancy
MOBILITY, MORTALITY, QUALITY OF LIFE, DEPRESSION, URINARY INCONTINENCE SEXUAL FUNCTION	5-15% may show significant improvement

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Treatment of Obesity as a Chronic Metabolic Disease

- **Treat Obesity as any other disease**
- **Approach in a confident, supportive and non-judgemental way**
- **Listen and Hear what the patient is telling**
- **Pursue a step-wise strategy while exploring combinations as needed**
- **A comprehensive treatment approach with compassion is paramount**



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