

## Abstract

**Background:** Obesity is a major public health challenge; it is widespread, highly prevalent and has clinical implications with potential negative effects on almost every organ system, as well as being a psychosocial and economic burden. Overweight and obesity, especially abdominal obesity, are associated with type II diabetes, hyperlipidemia, hypertension, coronary heart disease, stroke, peripheral arterial disease and other comorbidities.

**Aims:** To clarify effect of different bariatric procedures on metabolic comorbidities on obese patients and to assess outcomes, complication and its treatment.

**Methodology:** Obesity is a major public health challenge; it is widespread, highly prevalent and has clinical implications with potential negative effects on almost every organ system, as well as being a psychosocial and economic burden. Worldwide prevalence of Metabolic Syndrome ranges from <10% to as much as 84%, depending on the region, urban or rural environment, composition (sex, age, race, and ethnicity) of the population studied. It is expected that one-quarter of the world's adult population has Metabolic Syndrome.

**Conclusion:** Obesity is usually defined using the body mass index (BMI). Gastric bypass is associated with significant improvement of the cardiovascular risk profile and a decrease in cardiovascular events up to 20 years following gastric bypass surgery was documented.

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**Keywords:** Bariatric Surgery, Obesity Related, Metabolic Diseases

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## **List of Abbreviations**

AGB	: Adjustable gastric banding
ATP III	: Adult Treatment Panel III
BA	: Postprandial bile acids
BMI	: Body mass index
BP	: Blood pressure
BPD	: Biliopancreatic Diversion
CCK	: Cholecystokinin
DS	: Duodenal switch procedure
DSE	: Diabetes support and education
EWL	: Excess weight loss
GGF	: Gastro-gastric fistula
GH	: Growth hormone
GI	: Gastrointestinal
GIP	: Gastric inhibitory polypeptide
GLP1	: Glucagon like peptide 1
HDL-C	: High-Density Lipoprotein cholesterol
NCEP	: National Cholesterol Education Program
NHANES	: National health and nutrition examination survey

### *List of Abbreviations*

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NPY	: Neuropeptide Y
PAI-1	: Plasminogen activator inhibitor 1
PYY	: Peptide YY
RYGB	: Roux-en-Y gastric bypass
SG	: Sleeve Gastrectomy
TG	: Triglycerides
UGI	: Upper gastrointestinal
VBG	: Vertical banded gastroplasty
WL	: Weight loss

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# Introduction

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# **Aim of the Work**

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## CHAPTER (1):

# **Obesity; Definition and Prevalence**

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## CHAPTER (2):

# **Treatment of Obesity and Bariatric Surgical Procedure**

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## CHAPTER (3):

# **Effect of Bariatric Surgery on Metabolic Diseases**

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## CHAPTER (4):

# **Post-Operative Follow up Care and Complications**

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# **Summary and Conclusion**

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# References

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# Arabic Summary

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