

152168

Satish Mittal



The Metabolic Syndrome in Clinical Practice

 Springer

Preface	vii
1 Introduction	1
Prevalence	1
Insulin	6
The Thrifty Geno- and Phenotype Hypothesis	16
2 Components of Metabolic Syndrome	21
Insulin Resistance	23
Obesity	26
Dyslipidemia	30
Proinflammatory State	36
Prothrombotic State	57
Endothelial Dysfunction	61
Hypertension	64
Glucose Intolerance	67
Chronic Kidney Disease (Microalbuminuria)	71
Smoking	72
Physical Inactivity	73
Advancing Age	74
Hyperuricemia	75
Oxidative Stress	75
3 Pathogenesis of the Metabolic Syndrome	83
The Role of Genes	83
Glucocentric View	96
Lipocentric View	97
The Role of Free Fatty Acids	98
Mechanism of Lipid Accumulation in Skeletal Muscle and Liver	101
Hypertriglyceridemia	103
Postprandial Glycemia	109
Growth Hormones	110

4	Clinical Diagnosis of the Metabolic Syndrome	115
	World Health Organization Criteria	117
	International Diabetes Federation Criteria	118
	American Heart Association and National Heart, Lung, and Blood Institute Statement	120
	American Association of Clinical Endocrinologist Criteria	120
	European Group for Study of Insulin Resistance Criteria	122
	Glucose Intolerance	124
	Cardiovascular Disease Risk and the Metabolic Syndrome	128
5	Consequences of the Metabolic Syndrome	131
	Cardiovascular Disease and Diabetes	131
	Excess Adiposity	136
	Nonalcoholic Fatty Liver Disease	141
	Polycystic Ovary Syndrome	146
	Sleep Apnea	149
6	Clinical Management of the Metabolic Syndrome	154
	Risk Assessment	154
	Goals for Clinical Management	156
	Management of Underlying Risk Factors	158
	Management of Metabolic Risk Factors	180
7	The Metabolic Syndrome and Obesity in Children and Adolescents	224
	Prevalence	224
	Pathogenesis	224
	Assessment	226
	Cardiovascular Disease	227
	Type 2 Diabetes	229
	Obesity	229
	Index	235