Contents

List of contributors About the editors Preface—obesity in obstetrics	xv xix xxi	Factors that contribute to disparities in obesity Conclusion References	10 17 17
Section 1 Epidemiology		3. Obesity based on genetic and molecular influences Charles Savona-Ventura, Adnan Hasan and Tahir Mahmood	25
1. Worldwide epidemic of obesity Rohana N. Haththotuwa, Chandrika N. Wijeyaratne and Upul Senarath Introduction Definitions of overweight and obesity The extent of the problem	3 3 4	Introduction Genetic factors Molecular basis for energy intake regulation Control of energy expenditure and adipogenesis Metabolic programming Conclusion	25 25 26 29 31 32
Obesity in children and adolescents Temporal trends Factors associated with overweight and obesity Disease burden and impact on health and economy International response to the epidemic Conclusion References	4 5 5 6 6 7 7	Afework Tsegaye, Gyöngyi Kökönyei, Alexander Baldacchino, Róbert Urbán, Zsolt Demetrovics and H.N. Alexander Logemann	37
2. Social, ethnic, and environmental determinants of obesity Adi Katz, Sarah Pachtman Shetty and Richard A. Stein	9	General introduction Eating behavior Cognition Stigma and discrimination Stress and mood disorders	37 38 38 39 39
Introduction Trends in obesity Health impact and burden of overweight and obesity	9 9 9	Personality traits Emotion regulation Summary Acknowledgments References	40

1/4553	ection 2 anning for Pregnancy in Obese			Postpartum management References	59 59
	/omen		_	1.116	
			/.	Ultrasound scanning in early	
_	Description and automortum			pregnancy and fetal abnormality	
5.	Preconception and antepartum			screening in obese women	61
	care in overweight and obese women	47		Victoria Mumford and Asma Khalil	
	Amos Grunebaum, Joachim Dudenhausen and			Key points for clinical practice	61
	Frank A. Chervenak			Introduction	61
				Excess fetal risks associated with obesity	62
	Introduction	47		Ultrasound assessment in obesity	63
	Epidemiology of obesity and overweight in			Fetal growth assessment	65
	pregnancy or reproductive age women	47		Technical tips for ultrasound in obese women	65
	Impact of overweight/obesity on female and			Financial issues	65
	male (plus age) on fertility	47		Medicolegal litigations	66
	Morbidity and mortality of overweight/obesity			Interventions	66
	in pregnancy	47		Conclusion	67
	Preconception care of overweight/obesity	48		References	67
	Early pregnancy in overweight and obese	40			
	women	48	8.	Challenges of third-trimester	
	Recommended and optimal weight gain in	10	٠.	screening in obese women	69
	pregnancy	48		screening in obese women	US
	Lifestyle and nutrition recommendations for pregnant obese women	49		Moti Gulersen and Frank A. Chervenak	
	Antepartum care of overweight and obese			Selecting optimal site for measurements	69
	women	49		Estimation of Foetal birth weight	69
	Obesity and gestational diabetes mellitus	50		Accuracy of Foetal weight estimation near term	70
	Obesity and hypertension	50		Limitation of ultrasound estimation of weight	71
	Obesity, preterm birth, and neonatal mortality	50		Optimal timing for sonographic assessment	71
	Intrapartum care and prevention of			Assessment of amniotic fluid volume	71
	postpartum risks in obese patients	50		Summary eliterectors from mentalida an eticodi	72
	Managing weight postpartum	51		References	72
	Conclusion	51			
	References	51	0	An avaryious of complications	
			9.	An overview of complications	
	Managament of programmy in			associated with obesity during	
о.	Management of pregnancy in			pregnancy	75
	women with history of weight loss			Tahir Mahmood	
	surgery	53		Tanir Manmood	
	Matthew Brown and Loonia Bonna			Introduction	75
	Matthew Brown and Leonie Penna			Pathophysiological changes among obese	
	Obesity and bariatric surgery	53		women during pregnancy	75
	Types of bariatric surgery	54		Obesity in pregnancy	75
	Restrictive procedures	54		Gestational diabetes	76
	Malabsorptive procedures	55		Preeclampsia and pregnancy-induced	
	Complications of bariatric surgery	55		hypertension	76
	Reproductive health after bariatric surgery	55		Maternal venous thromboembolism	77
	Preconception counseling	56		Congenital abnormalities and obesity	77
	Antenatal management	57		Macrosomia and obesity	77
	Recommended investigations in pregnancy			Obesity and risk of preterm rupture of	
	after bariatric surgery	57		membranes	78
	Nutrition and treatment of possible			Stillbirth and obesity	78
	deficiencies	57		Obesity and induction of labor	78
	Management of acute attendance during			Place of birth	78
	pregnancy	59		Obesity and mode of delivery	78

	Obesity and obstetrics anesthetics Postpartum complications	79 79	13.	Obesity, hypertension, and	์ 117
	Breastfeeding	79		preeclampsia	A 117
	Postnatal depression	79		Fiona Broughton-Pipkin and Pamela Loughna	
	Perinatal outcome	80		diposity and premancy and allocate	
	Conclusion	80		Introduction Introduction	117
	Conflict of interest	80		Definitions box ylloodo yrizogib	117
	References	80		Blood pressure measurement	117
	ed Kapar and Lear Malagood Seasons			Urine testing	118
				Changing incidence of obesity	118
10.	Obesity and adolescent pregnancy	83		Does obesity predispose to preeclampsia?	118
	obesity and adorescent programs,			Potential mechanisms	119
	Manasi Patil, Hilda Yenuberi and			Adipokines	120
	Matthews Mathai			Is "preeclampsia" in the obese really	
	hyperglytemia in pregnancy			underlying chronic (essential)	
	Introduction	83		hypertension?	121
	Adolescent pregnancy	83		Final considerations	122
	Adolescent Obesity	85		References	123
	Pregnancy in obese adolescents	86		References instantia	
	Interventions	86			
	References	88	14.	Obesity and venous	
				thromboembolism and	
					105
11.	Algorithmic approach to antenatal			management plan	125
	care for women with obesity	91		Joanne Ellison and Andrew Thomson	
	Shiri Shinar, Dan Farine and Cynthia Maxwell			Introduction	125
	ut W. Camphell			Epidemiology, prevalence, and trends	125
	Review of guidelines for antepartum care	91		Obesity, pregnancy, and venous	
	Prepregnancy care and recommendations	93		thromboembolism risk: underlying	
	Antenatal care	94		mechanisms	126
	Antenatal fetal screening-special			Prevention of venous thromboembolism in o	
	considerations	95			127
	Planning for labor and birth	96		women during pregnancy	
	Intrapartum care and anesthetic			Care of individuals identified as at higher ris	
	considerations	97		venous thromboembolism	129
	Summary	101		Investigation of suspected venous	
	References	101		thromboembolism in obese pregnant	
	References	101		women	131
				Summary	131
12	Antenatal care for postbariatric			References	132
12.		405			
	women	105			
	Natalie Meirowitz, Ruchira Sharma and		Se	ction 3	
	Andrew C. Rausch			pesity and hyperglycaemia	
	Key points	105	of	pregnancy	
	Is there an optimal time to conceive a	.00	O.	biegiane)	
		105		atemal lipid supply and retal growth	M
	pregnancy after bariatric surgery?		15.	Pregnancy and metabolic syndrome	e of
	Nutritional considerations	106		obesity	137
	Gestational weight gain	107		feels on vascular function	13
	Gestational diabetes: risk, screening, and	400		Sarah Barr, Scott M. Nelson and Shahzya S. H	luda
	management	108		eurohormonal changes	
	Nonobstetric complications in the	1		Introduction	137
	postbariatric gravida	109		Lipid metabolism and fat deposition in lean	
	Pregnancy outcomes after bariatric			pregnancy	137
	surgery	111		Lipid metabolism and fat deposition in obes	e
	References	113		women	138

20.	Obesity, insulin resistance, and placental dysfunction—fetal			Conclusion References	215 215
	growth and bus yillida and smalls	191		Total Administration Selfmenting	
	Mariam Al Beloushi, Anjum Doshani and		23.	Anesthetic issues during labor in	
	Justin C. Konje			obese women	219
	Introduction	191		Alistair Milne and Alistair Lee	
	Obesity and the endocrine environment	192		IntroductionPhysiology of Obesity and	
	Placenta and insulin resistance	192		Pregnancy	219
	Placental size	193		Anesthetic considerations	220
	Placental transporter system	193		The anesthetic clinic	221
	Placenta and inflammatory response	194		The labor ward	222
	Prothrombotic state	194		The operating theater	223
	Diabetes and the placenta	194		The postoperative period	225
	The intrauterine growth-restricted fetus	195		Conclusion	226
	Conclusion quewollot bas here goine or	195		References	226
	References	196		Imagerative technique	ni a
			24.	Obesity, diabetes, placental	
Se	ction 4			pathology, and fetal	
140	nagement of labour			malformations	229
IVId	inagement of labour			nontopus pas anche de lo marco	223
21	Induction of labor in obese			Margaret J. Evans	
		201		Introduction	229
	women	201		Obesity, diabetes, and the umbilical cord	
	Andrew P. Brown, Carolyn Chiswick and			coiling	230
	Fiona C. Denison			Obesity, diabetes, and the placenta	232
	ginal birth after resarean section where seed			Obesity and other placental changes	233
	Background	201		Obesity, diabetes, and fetal pathology	233
	Indications for induction of labor	201		Obesity, diabetes, and disease in childhood	235
	Women with a previous caesarean section	203		Conclusion	236
	Assessment prior to induction of labor	204		References	236
	Methods of inducing labor	204			
	Fetal well-being	204	25	Maternal obesity and the risk of	
	Summary	205 205	23.		220
	References	203		stillbirth	239
22	Intrapartum care for obese and			Lisa Scott and Mairead Black	
22.	HONOR HONOR TO BE NOT THE PROPERTY OF THE PRO	207		Background	239
	morbidly obese women	207		Epidemiology	239
	Lindsay Edwards and Boon H. Lim			Pathophysiology	240
	clessify development and			Direct risk factors	240
	Introduction	207		Gestational diabetes	240
	Preterm and postterm pregnancy	207		Hypertensive disorders	240
	Induction of labour	207		Vascular pathology and placental	
	Place of delivery	208		dysfunction	240
	Equipment required	208		Metabolic syndrome	241
	Labour and intrapartum monitoring	208		Previous obstetric history	241
	Labour dystocia	209		Fetal abnormalities	241
	Second-stage progress	210		Sleep disorders	241
	Caesarean section in the obese woman	211		Failed antenatal screening	241
	Macrosomia and shoulder dystocia	213		Postmaturity	24
	Postpartum care	213		Indirect risk factors	241
	Perinatal morbidity	214		Age	24
	Risks in subsequent pregnancy	214		Parity	241

	Conclusion Acknowledgment References	297 297 297	32.	Developing standards of care for obese women during pregnancy	317
20		237		Chu Lim, Tahir Mahmood and Sabaratnam Arulkumaran	
30.	Antiobesity drugs for obese women planning pregnancy	301		Introduction The development of standard of sare	317
	Hang Wun Raymond Li, Karen Siu Ling Lam and Pak Chung Ho			The development of standard of care How to develop standards? The obesity epidemic	317 317 318
	Introduction Classification of antiobesity drugs Drugs for weight reduction in reproductive age women: pharmacology and clinical	301 301		Prepregnancy care Interventions for the management of obesity before and during pregnancy Antenatal care	318 319 320
	efficacy Pharmacological antiobesity treatment in	301		Conclusion References	323 323
	women contemplating pregnancy Concluding remarks References	304 305 305	33.	Planning for the future: maternity services in 2035	327
31.	Weight-reducing surgery for			Hajeb Kamali, Sophie Moloney-Geany, Tim Draycott and Tahir Mahmood	
	women planning pregnancy: where are we now?	307		Projected prevalence of obesity in 2035 Current model of care	327 329
	Siara Teelucksingh, Lorenzo Gonzales and Surujpal Teelucksingh			Future model of care How can we deliver this care?	329 332
	Introduction Background	307 307		Research needed to inform future planning Summary References	332 332 332
	The pros and cons of bariatric surgery How does bariatric surgery affect sexuality	309	24		335
	and sexual function? Should the desire of fertility be a prime indication for bariatric surgery?	309 310	34.	Maternal obesity and stigma Ellinor K. Olander	333
	A case of spontaneous conception following weight-reducing surgery	310		Introduction to chapter Stigma	335 335
	What is the optimum timing for planning a pregnancy after weight-reducing	244		Pregnant women's experiences of obesity stigma	335
	surgery? Special precautions after weight-reducing surgery	311 311		Obesity stigma and its influence on maternal health	336
	Nutrition Anemia	311 311		Health-care professionals' attitudes toward and experiences of caring for pregnant women with obesity	337
	Gastrointestinal symptoms Monitoring of fetal growth	311 311		Reducing weight stigma within maternity services	338
	Pregnancy outcomes after weight-reducing surgery Continued need to screen for gestational	312		Summary References	339 340
	diabetes mellitus and hypertension after weight-reducing surgery	312	Inde	x models v. Lenov Hall Hospital — North Hall Hall Hospital — North Hall Hall Hospital — North Hall Hall Hall Hall Hall Hall Hall Hal	343
	Postpartum considerations	313			
	Future work Conclusion	313 313			
	References	313			